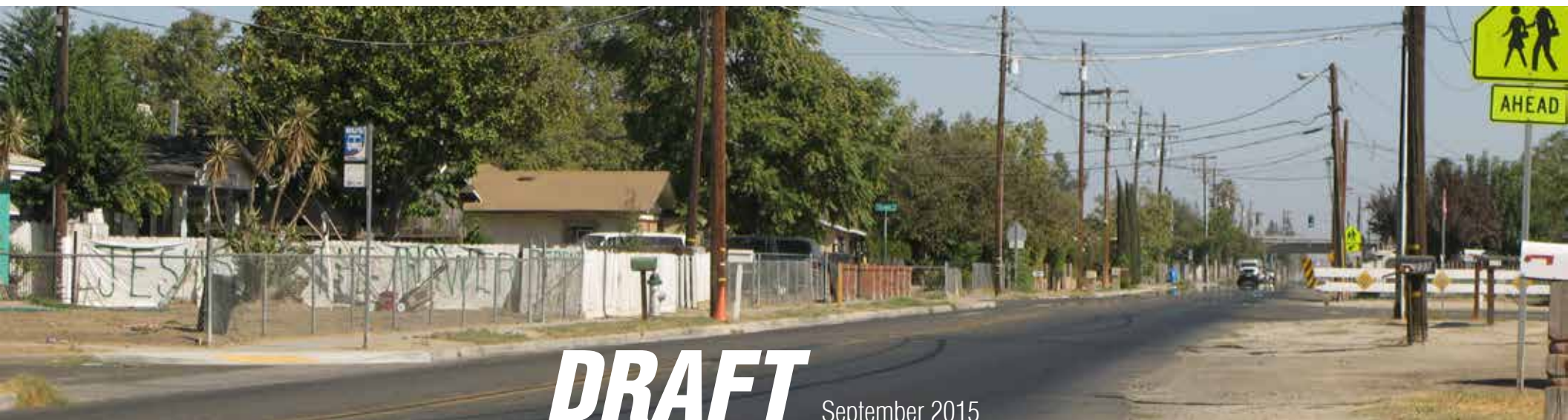




41 + NORTH CORRIDOR

Complete Streets Plan



Acknowledgements

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**DRAFT NOTE:
Additional staff
members and project
roles can be added.
Please help us identify
the right people.**

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1. INTRODUCTION

1.1 Project Overview & Background

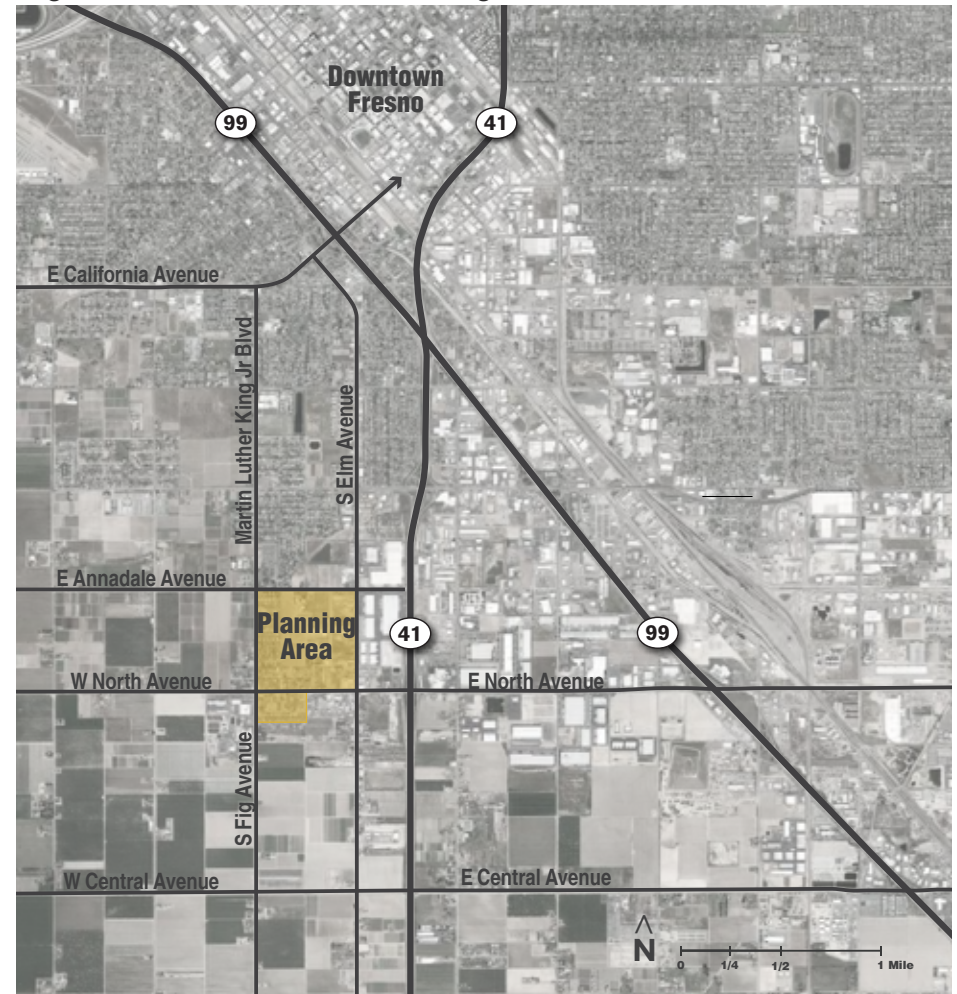
The Highway 41 + North Corridor Complete Streets Plan is the result of a six-month, community-led process that seeks to improve safety, mobility, and access for all modes of transportation along the North Avenue corridor and adjacent areas in Southwest Fresno and to identify long-term land use strategies for creating a more complete community where access to local amenities and services is readily available. As shown in Figure 1.1, the planning area encompasses the neighborhood roughly bounded by East Annadale Avenue to the north, West North Avenue to the south, Martin Luther King (MLK) Jr. Boulevard/South Fig Avenue to the west, and South Elm Avenue to the east.

Funding for the Plan was provided by a California Department of Transportation (Caltrans) Environmental Justice (EJ) Transportation Grant and secured through a joint application by the City of Fresno and Habitat for Humanity of Fresno County. The purpose of the EJ grant is to promote the involvement of low-income and minority communities in the planning for transportation projects with a focus on preventing or mitigating disproportionate, negative impacts while improving mobility, access, safety, and opportunities for affordable housing and economic development.

1.2 Project Priorities & Objectives

This plan is focused on recommending strategies to solve mobility challenges as identified by the community. Following Complete Streets principles, enhancements are described to address pedestrian access, bicycle networks, transit, and vehicle circulation. The planning process found significant gaps in basic sidewalk and pathways for pedestrians. Children walking to school and the bus were found to be particularly challenged by vehicle conflicts and lack of facilities. No facilities exist for cyclists. Safe feeling conditions for residents on foot and bike are further degraded by the quantity of fast moving large semi-trucks using

Figure 1.1: 41 + North Planning Area in Context



the main corridor through the neighborhood, North Avenue. This plan documents and prioritizes the mobility needs of the community. It identifies potential funding sources and costs of implementation. While no funding is earmarked for these improvements, the plan is a necessary first step in a longer term process of implementation.

1.3 Planning Process

Design Lab

The 41 + North Corridor Complete Streets Plan process was based upon an extensive outreach program that provided numerous opportunities for stakeholder and community input and offered the project team invaluable insights into the community's core needs and aspirations. For a summary of community events see Table 1.1.

The centerpiece of the outreach program was a three-day Design Lab held April 23-25, 2015, within the plan area at the North Avenue Church of Christ. The purpose of the Design Lab was to provide an intensive, community-oriented workshop for stakeholders and community members to offer real-time input during evening workshops to the planning and design team as it formulated the complete streets recommendations for the plan area during daytime work sessions. The Design Lab schedule included the following community events:

Table 1.1 – Summary of Community Outreach Activities

Event	Date	Location
CAC Meeting	March 18, 2015	Cargill
Design Lab Student Walk Audit Tour	April 23, 2015	North Avenue
Student Tactical Urbanism Art Installation	April 23, 2015	North Avenue Church of Christ
Design Lab Community Workshop #1	April 23, 2015	North Avenue Church of Christ
Design Lab Community Drop-In Dinner	April 24, 2015	North Avenue Church of Christ
Design Lab Pinup with City Staff & CAC	April 25, 2015	North Avenue Church of Christ
Design Lab Community Workshop #2	April 25, 2015	North Avenue Church of Christ

Event	Date	Location
Final Community/CAC Meeting	April 25, 2015	North Avenue Church of Christ
Washington Unified School District Mtg #1	June 16, 2015	Fresno City Hall
Washington Unified School District Mtg #2	September 3, 2015	Fresno City Hall
Bike/Pedestrian Advisory Committee Meeting	September 23, 2015	Fresno City Hall
Planning Commission Meeting	October 21, 2015	Fresno City Hall
City Council Meeting	October 22, 2015	Fresno City Hall

- **Design Lab Community Workshop #1: Visioning & Brainstorming.** On the first evening of the Design Lab, community members were invited to share their vision for their neighborhood and to brainstorm ideas with the project team for implementing a complete streets plan. For context, the project team presented its existing conditions analysis and a primer on common complete streets strategies.
- **Design Lab Community Drop-In Dinner.** On the second evening, a dinner was scheduled for community members in an open house format to provide them the opportunity to speak with the project team, view initial sketches, and provide feedback in an informal setting. Due to extremely high attendance, however, the project team made a more formal presentation of its initial design concepts.
- **Pinup with City Staff & Community Advisory Committee.** On the afternoon of day three, the planning and design team presented and received feedback on its three recommended alternatives for the complete streets plan from city staff and the Community Advisory Committee (CAC—see page 12 for information on the CAC).
- **Design Lab Community Workshop #2: Alternatives.** On the final evening of the Design Lab, the project team presented the recommended alternatives for the complete streets plan and received feedback from the community.
- **Student Walk Audit Tour.** The planning area is home to many families with children and includes the West Fresno Middle and Elementary Schools on S. Ivy Avenue. In order to engage young people in the planning and design process, the project team led a walk audit tour on the first morning of



Orange Center School 7th & 8th graders participating in the Design Lab walk audit (top) and tactical urbanism art installation.



Orange Center School 7th & 8th graders participating in the Design Lab tactical urbanism art installation.

the Design Lab for 31 seventh and eighth grade students from the nearby Orange Center School, many of whom live on North Avenue, S. Clara Avenue, W. Almy Avenue, and W. Roy Avenue. The tour, which focused on the southern portion of the plan area along North Avenue, offered students the opportunity to share their impressions and experiences as pedestrians and cyclists with the project team—information that was invaluable as the team considered design strategies to make walking and biking around the neighborhood safer for kids and adults alike.

- **Student Tactical Urbanism Art Installation.** Immediately following the student walk audit, the project team collaborated with the Orange Center School students on a short-term tactical urbanism corridor beautification project. Students, teachers, parent chaperrones, city staff, and consultants all painted art panels on the North Avenue Church lawn that were then hung on the front fences of two neighboring North Avenue residences. Thrilled to see their artwork publicly displayed in their neighborhood, the students displayed a sense of pride and ownership that Habitat for Humanity is leveraging to lead a community-based neighborhood branding effort.

Final Community/CAC Meeting

The project team convened a final community/CAC meeting on June 24, 2015, to share revisions that were made to the recommendations following Design Lab Workshop #2 and receive any additional feedback from residents and CAC members.

Community Advisory Committee

The Community Advisory Committee (CAC) was comprised of key neighborhood stakeholders representing community residents, and other local stakeholders. The CAC was first convened on March 18, 2015, and engaged in a productive community visioning session with the project team. Members of the CAC attended Design Lab events and the final community meeting (see below), providing critical input that helped guide the overall direction of the Plan recommendations. CAC members included the following individuals:

- Laura Espanza, Resident
- Mona Esparaza, Resident
- Alicia Chezick, Resident
- Renee Jaso, Administrator, Mary Ella Brown Community Center
- Artie Padilla, Executive Director, Every Neighborhood
- Shaneece Childress, Fresno Housing Authority
- Annie Taylor, West Fresno Elementary School District
- Jeff Potter, Orange Center School District
- Jicc Tafoya, Washington Unified School District
- Joey Campbell, Washing Unified School District
- Rich Vallancour, Robert Boro Landscape Architecture
- Julio Vega, Cargill
- Joe Hernandez, Cargill
- Jose Preciado, Cargill
- John Nash, Cargill
- Pastor Lee Pointer, Bethlehem Baptist Church

Washington Unified School District

The project team held two meetings with the Superintendent of the Washington Unified School District, John Pestorich to discuss and solicit feedback on the Plan recommendations. Washington Unified and Superintendent Pestorich were keenly interested in the circulation and land use recommendations proposed as part of the Plan both because their students live and go to school in the plan area but also because the District is the largest property owner there. A large portion of the District's land holdings in the plan area include vacant, developable land that could be used in the future for an expanded school campus, housing, and/or other community facilities.

Bicycle/Pedestrian Advisory Committee

TBD

Project Team

The City of Fresno hired a team of urban planners and designers and civil engineers to lead the planning and design process and engage the local community in the visioning and revitalization of their neighborhood. The team was comprised of Wallace Roberts & Todd, along with Nelson\Nygaard Transportation Consultants, Urban Diversity Design, and Precision Engineering.

Additionally, Habitat for Humanity of Fresno County played a critical role in leading and implementing the team's community communication strategy and coordinating the many community events.



Design Lab Community Drop-In Dinner (top) and Community Workshop #2

Plan Development

Based on the feedback from community members, stakeholders, and city staff and using complete streets best practices, the project team developed the Complete Streets Plan, which includes recommendations for making the 41 + North neighborhood a safer, more enjoyable, and healthier places to live.

The Draft Complete Streets Plan was revised with input received from the community and the Project Advisory Committee to create this document. Implementation of this Plan will depend on funding and prioritization by the City and other responsible agencies, addressed in Chapter 4: Implementation.

Southwest Fresno Specific Plan

Concurrently to the 41 + North planning process, the City of Fresno began work in Spring 2015 on a specific plan for Southwest Fresno that includes the planning area. While they are independent planning efforts, it is anticipated that recommendations from the 41 + North Complete Streets Plan will be incorporated into the Southwest Specific Plan and further refined as necessary to reflect the overall goals and objectives of the Specific Plan.



2. EXISTING CONDITIONS

2.1 Community Context Overview

The 41 + North Planning Area is comprised of approximately 190 acres located 1/4 mile west of Highway 41 in Southwest Fresno, as shown in Figure 2.1. West North Avenue, which intersects Highway 41 via an elevated interchange, is the primary east/west roadway traversing the neighborhood and is also a designated truck route serving nearby industrial uses such as the Cargill meat packing plant at the southwest edge of the planning area.

During the project's first phase, the project team conducted an existing conditions analysis in order to understand the neighborhood's key assets and challenges in relation to mobility, land use, and infrastructure. This exploration revealed three critical community needs that are discussed in depth in the following sections. They include:

- **Safe Streets.** Creating a mobility network that is safe and comfortable for all transportation modes including walking and biking and for all people no matter their age or ability.
- **Open Space.** Increasing the amount of open space in the neighborhood, as well as taking advantage of existing open space with simple and affordable improvements.
- **Community Amenities.** Being aware of the amenities that are not being taken advantage of and providing access to those amenities. Providing additional amenities that commonly exist in residential neighborhoods and would be beneficial to a large portion of the community.

2.2 Mobility

The existing land use patterns and associated street grid in the planning area contribute greatly to the mobility challenges of the neighborhood. The numerous cul-de-sacs, dead ends, and looping streets require all transportation modes to navigate circuitous routes to travel from one part of the planning area to the other, even when going short distances. Long blocks contribute to this issue.

Pedestrian Network

As shown in Figure 2.2, although most streets in the planning area have some pedestrian infrastructure, sidewalks are not always continuous, it can be far between pedestrian crossings, and sidewalks in many places are narrower than recommended. W. Almy Avenue and W. Roy Avenue lack sidewalks entirely, though they are residential streets with low speeds and limited traffic. S. Elm Avenue has continuous sidewalks throughout the planning area.

Existing crosswalks have traditional parallel line markings. These are problematic, because they can be hard for drivers to see and yet give pedestrians the impression that they will have a safe crossing. The crossing at S. Clara Avenue on W. North Avenue is particularly problematic; given the 40 mph speed limit and high truck volume, few vehicles yield to pedestrians.

The community makes frequent use of the vacant parcels owned by the Washington Unified School District (see Figure 2.1) as a cut-through, and has created a network of dirt paths that connect the residential area on the west side to the schools and community center on the east side.

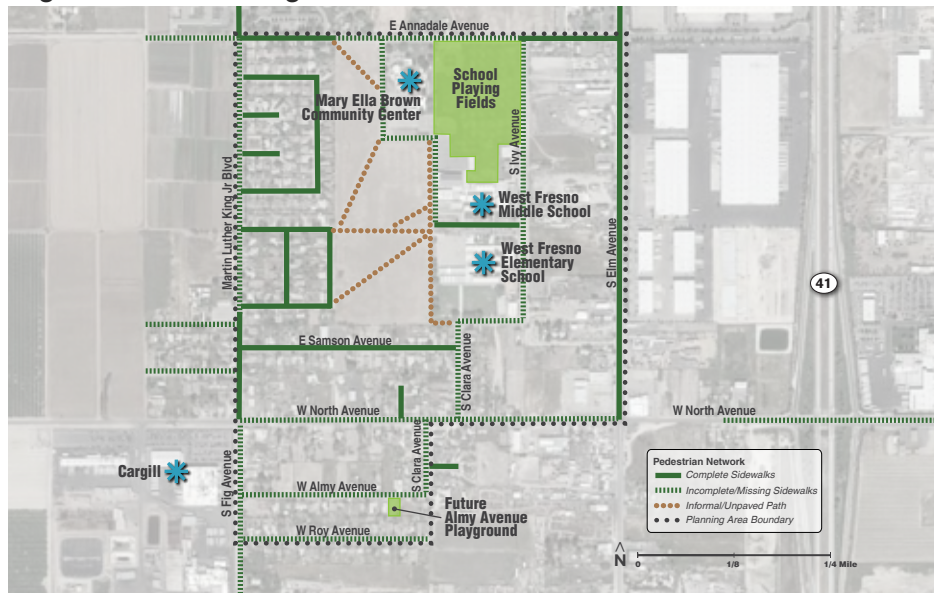
Figure 2.1: 41 + North Planning Area



Source: WRT 2015

The informal paths are symptomatic of lacking connectivity in the fragmented street network, and lack of infrastructure that may make the paths more pleasant to use. Cul-de-sacs, overly long blocks, and dead ends, make trips on foot or by bicycle significantly more time-consuming. For example, walking across the vacant parcels from E Edgar Ave to the Middle School takes about 3 minutes (<700 feet), but following the street network would take over 20 minutes (0.9 miles).

Figure 2.2: Existing Pedestrian Network

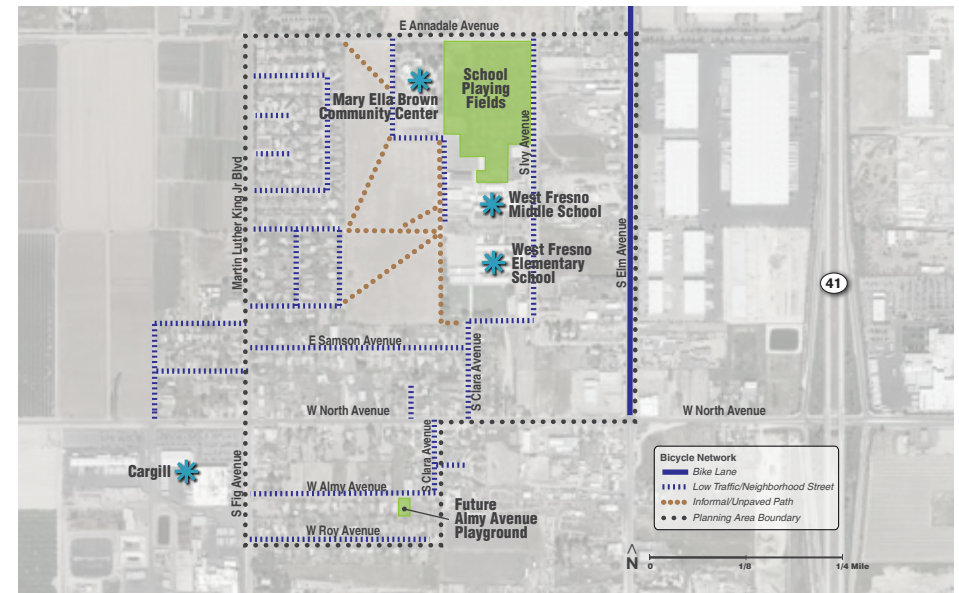


Source: WRT 2015

Bicycle Network

In the planning area, only S. Elm Avenue has bike lanes, as shown in Figure 2.3. The other main streets, Annadale Avenue, Fig Avenue, and North Avenue, all have wide lanes but speeds are too high for these streets to be comfortable for most cyclists. Along these streets most cyclists were observed riding on the sidewalk. The residential streets also lack infrastructure, but have lower traffic volumes and speeds. The main destinations in the project area are all within easy bicycling distance, but connectivity across and along the main streets limits biking as a practical option for many and makes parents hesitant to let their children ride around the neighborhood. As for walking, bicycles also make use of informal paths to compensate for lacking connectivity and infrastructure.

Figure 2.3: Existing Bike Network



Source: WRT 2015



Figure 2.4: Existing and Projected Daily Traffic Volumes on Major Streets

	Existing		Existing est. ADT	Projected PM	Est. projected ADT
Fig Ave. between Annadale Ave. & North Ave.	1,038 (SB)	1,420 (NB)	2,458	950	9,500
North Ave. between Fig Ave. & Elm Ave.	3,480 (EB)	6,900 (WB)	10,380	2,290	22,290
Elm Ave. between North Ave. & Annadale Ave.	1,395 (SB)	1,861 (NB)	3,256	920	9,200
Annadale Ave. between Fig Ave. & Elm Ave.	1,143 (EB)	1,400 (WB)	2,543	800	8,000

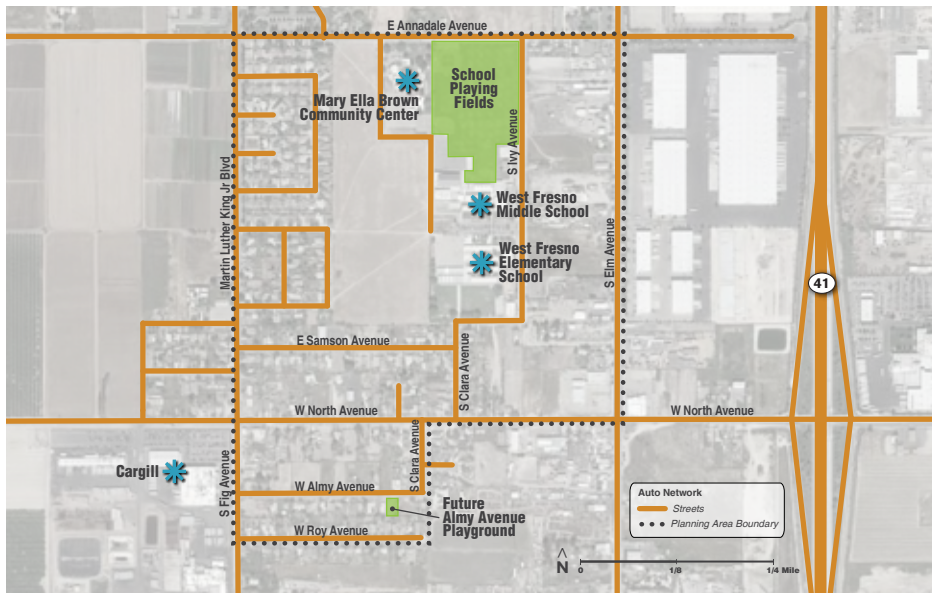
SB = Southbound, NB = Northbound, EB = Eastbound, WB = Westbound, ADT = Average Daily Trips

Projected traffic volumes from City of Fresno General Plan Update, horizon year 2035. ADT estimated based on PM peak often being 10% of ADT.

Auto Network

The existing auto network is built out with connections to all destinations (Fig. 2.5). The streets are generally in fair repair, with the exception of Roy Ave. & Almy Ave. where the pavement is in poor condition (the City has funds allocated for street improvements). Generally the network is characterized by overly wide lanes and capacity greatly exceeding existing or projected traffic volumes (Fig. 2.4). This represents a great opportunity to allocate a share of that space to other modes, without impacting vehicle capacity. Both S. Elm Avenue and W. North Avenue are designated truck routes and see significant amounts of truck traffic throughout the day. Truck traffic and noise on W. North Avenue to the Cargill meat packing plant are of particular concern to residents, as N. Ave. has residential development on both sides.

Figure 2.5: Existing Auto Network

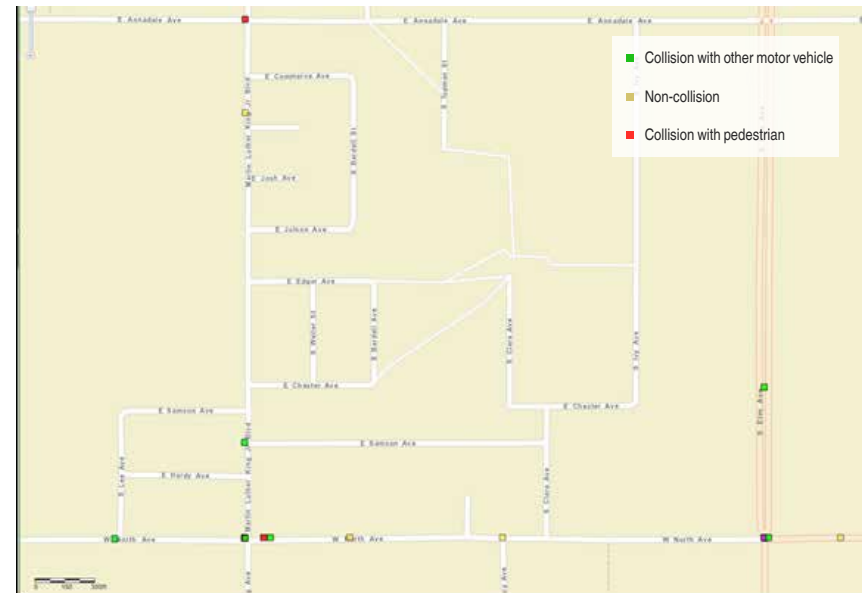


Source: WRT 2015

Collisions

There were 19 collisions recorded in the planning area in the California Statewide Integrated Traffic Reporting System (SWITRS) between 2008 and 2013. As shown in Figure 2.6, the majority of these collisions occurred at or near intersections, particularly at Martin Luther King (MLK) Avenue/S. Fig Avenue/W. North Avenue and S. Elm Avenue/W. North Avenue. There were three recorded fatalities, two at MLK Avenue/S. Fig Avenue/W. North Avenue (a cyclist and a pedestrian) and one at S. Clara Avenue/W. North Avenue (a cyclist). There were 4 additional collisions that caused injury, with the remaining causing property damage only. The most common causes were driving under the influence and unsafe lane changes; the remaining collisions were caused by miscellaneous other driver errors.

Figure 2.6: Collisions



Source: California Statewide Integrated Traffic Reporting System 2008-2013

North Avenue

North Avenue is a wide two-lane road with 20' lanes in both the eastbound and westbound directions. The north side of North Avenue has inconsistent, but mostly intact, sidewalks, while the south side of the street has virtually no sidewalk. The south side suffers from frequent flooding and ponding during rain events, making it difficult and unsafe for pedestrians to navigate the street. The width of the lanes and lack of traffic calming techniques allow for high speeds of traffic, especially with large trucks driving to and from the Cargill plant at the west side of this stretch of North Avenue.

Figure 2.7: Existing North Avenue Cross-Section



Annadale Avenue

E Annadale Ave has sidewalks on both side of the street for a block at either end of the project area. In the center of the project area there is a sidewalk on the south side. On the north side are mainly fields, and a sidewalk may not be needed until there are destinations that attract pedestrians. The existing lanes vary in width, but there is a significant portion of the street that has a 15' westbound lane and a 20' eastbound lane. Lanes this wide are unnecessary and tend to encourage higher vehicle speeds.

Figure 2.8: Existing Annadale Avenue Cross-Section



Martin Luther King Jr. Boulevard

The curb to curb width of Martin Luther King Jr Blvd varies between 40' and 58', with a single lane in each direction. Lane width varies from 11' to 30' through the corridor. Lanes this wide tend to promote higher vehicle speeds, making the street less comfortable and safe for pedestrians and cyclists.

Figure 2.9: Existing Martin Luther King Blvd Cross-Section



Elm Avenue

S. Elm Ave was relatively recently built out to have two lanes in each direction with bike lanes, a planted median, and sidewalks with a planted buffer and trees. However, the street is overbuilt for existing and projected traffic volumes, and the 4 lane design tends to encourage higher vehicle speeds because impatient drivers can pass vehicles maintaining the speed limit.

Figure 2.10: Existing Elm Avenue Cross-Section

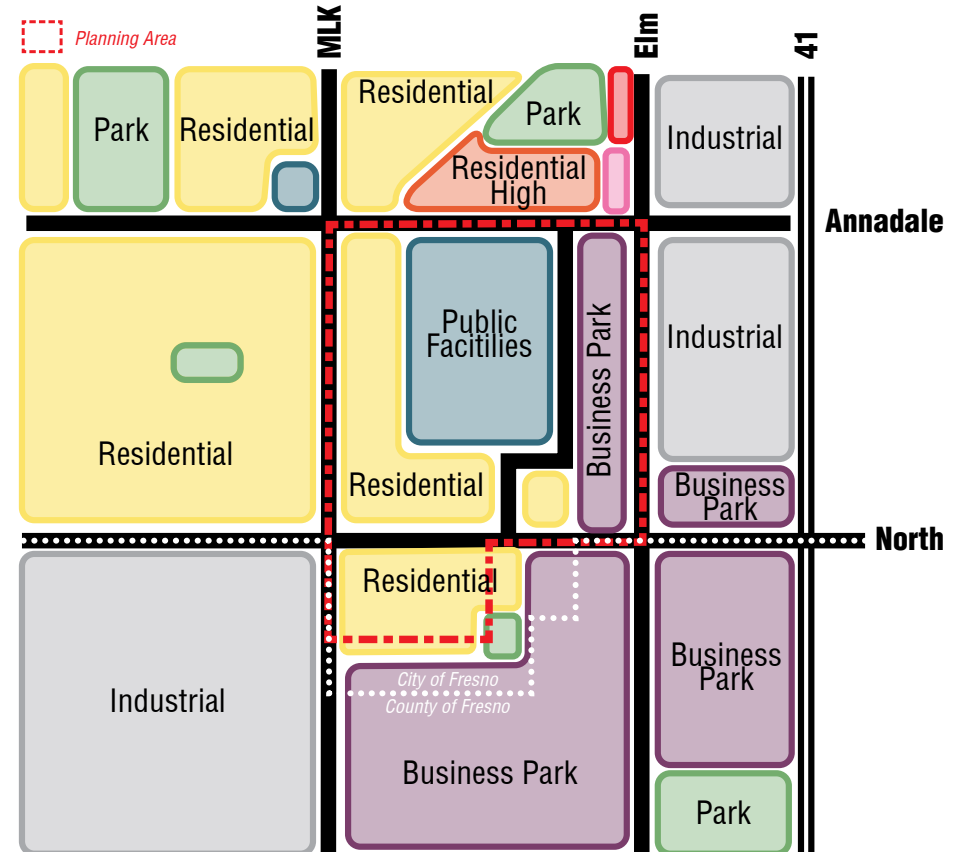


2.3 Land Use

The planning area and its immediate vicinity contain a diverse mix of land uses, including residential, institutional (school), industrial, agricultural, and a small amount of commercial and park uses. Residential uses are generally concentrated on the western and southern portions of the planning area.

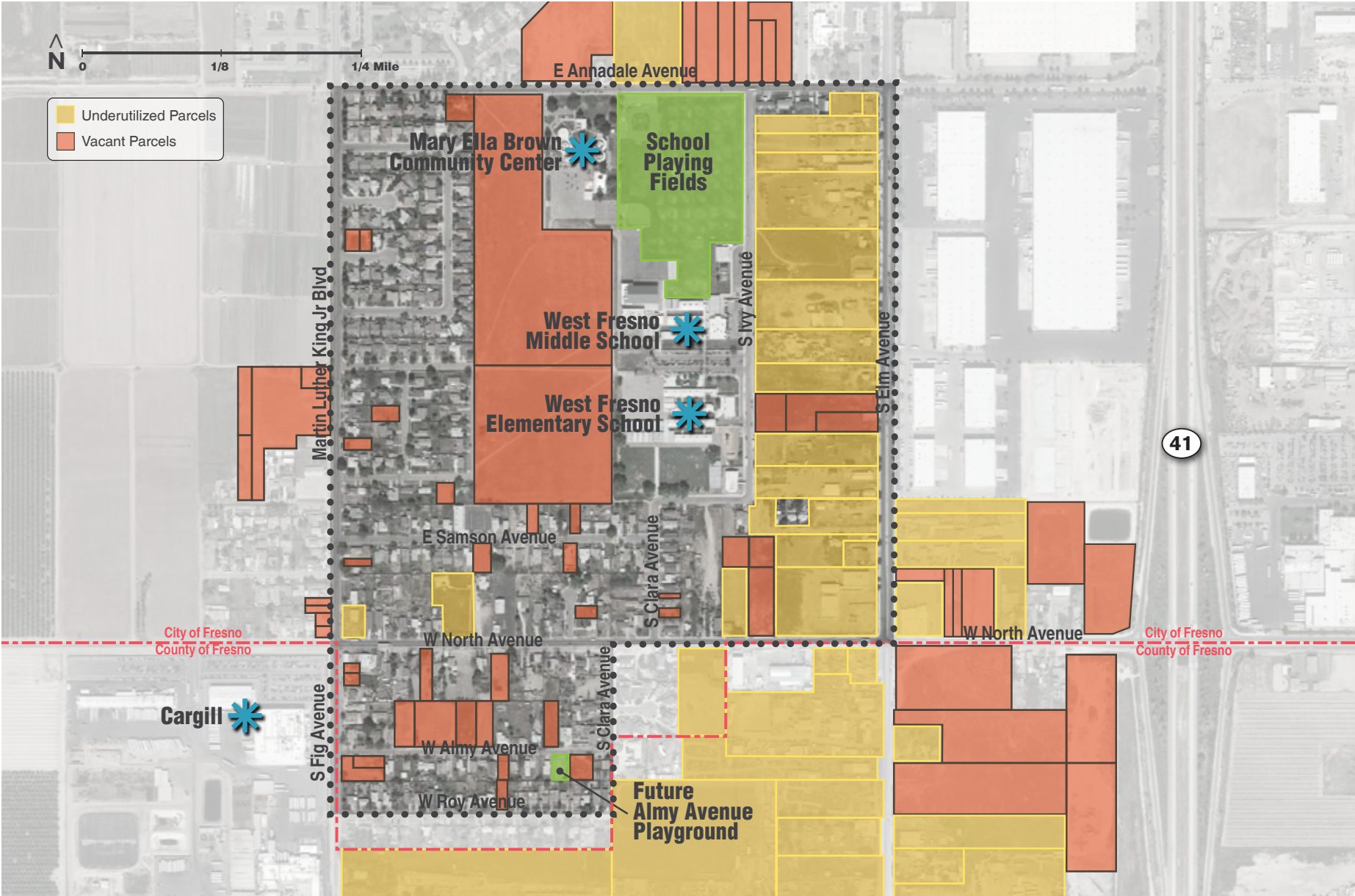
- Existing Land Use and relationship to connectivity network
- Relationship to General Plan
- Issues of incompatible uses
- Lack of open space
- Vacancy/Underutilization/opportunity sites
- Identity and community character

Figure 2.11: 2035 General Plan Land Use



Source: Fresno General Plan 2015; WRT 2015

Figure 2.12: Parcel Utilization



Source: WRT 2015

2.4 Infrastructure

Stormwater

The existing stormwater infrastructure along North Avenue is limited, as shown in Figure 2.13. Curb and gutter is lacking at many locations, particularly on the southern side. The existing curb and gutter is not continuous and at disparate locations based on a varying right of way width. Drainage inlets and collection piping are not present on North Avenue west of Elm Avenue. Similar conditions are present on the western side of MLK.

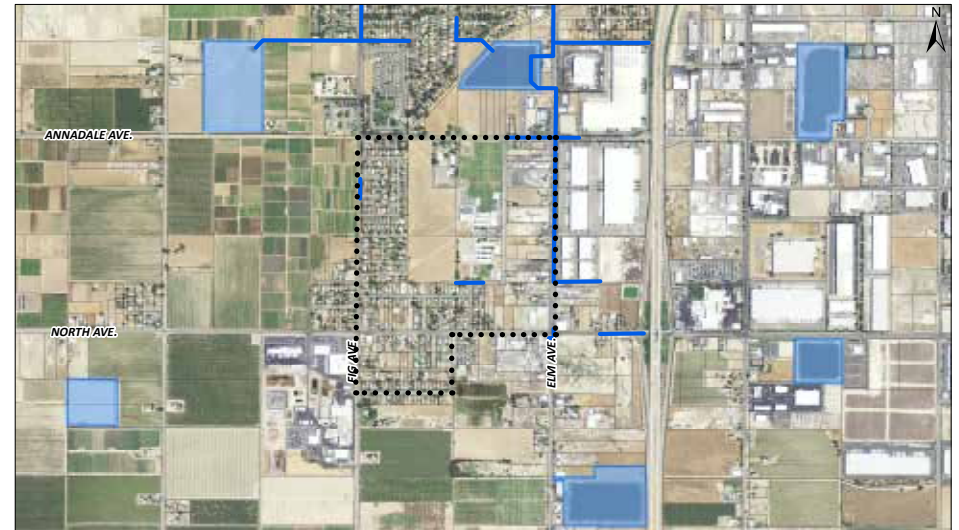
Power & Telecommunications

The existing electric and telecommunications service is provided via overhead lines. These lines cross North Avenue at multiple locations creating a cluttered visual aesthetic. Overhead power lines are also present along MLK.

Water & Sewer

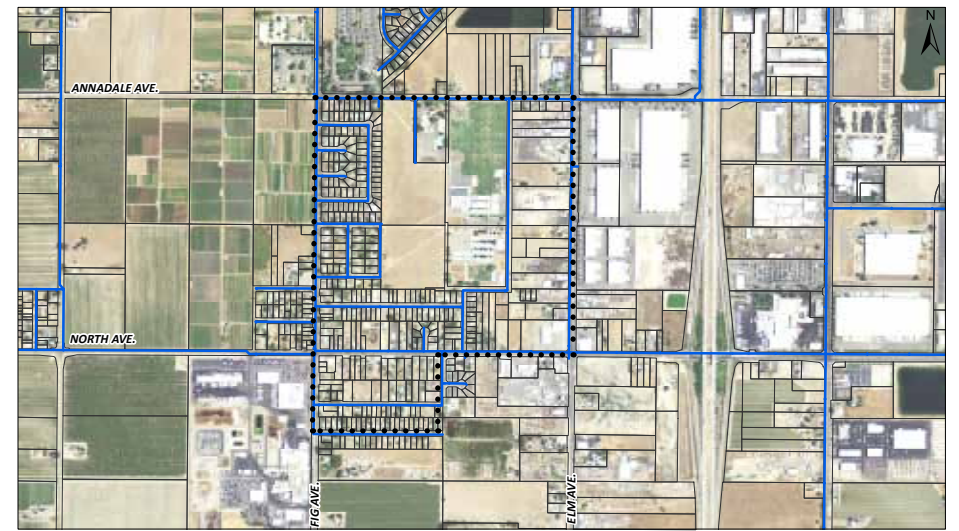
A below grade water line for domestic use and multiple large diameter sewer lines exist in the North Avenue right of way. The two large sewer lines 60"+ diameter are potential conflicts for additional trenching. Existing water and sanitary sewer lines as shown in Figures 2.14 and 2.15.

Figure 2.13: Existing Stormwater Pipes & Basins



Source: City of Fresno 2015; Precision Engineering 2015

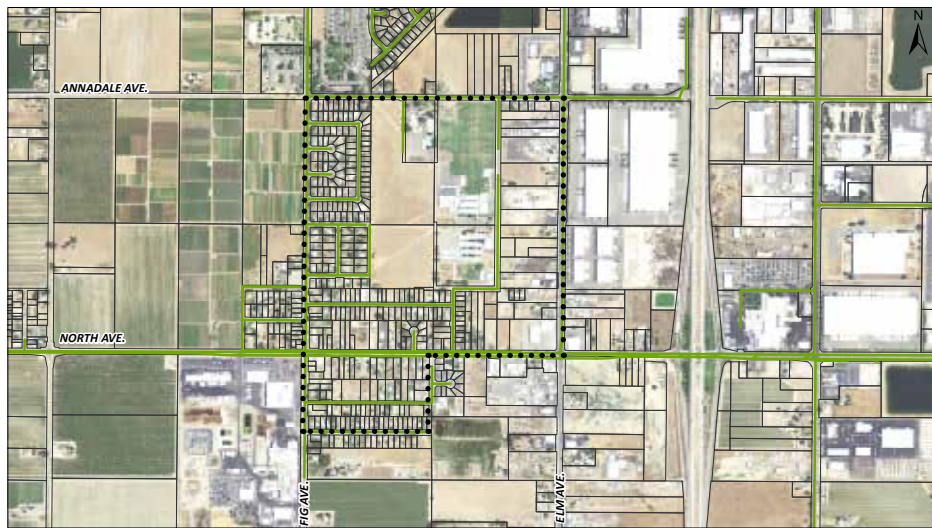
Figure 2.14: Existing Water Lines



Source: City of Fresno 2015; Precision Engineering 2015



Figure 2.15: Existing Sanitary Sewer Lines



Source: City of Fresno 2015; Precision Engineering 2015



3. PLAN RECOMMENDATIONS

3.1 Summary of Recommendations

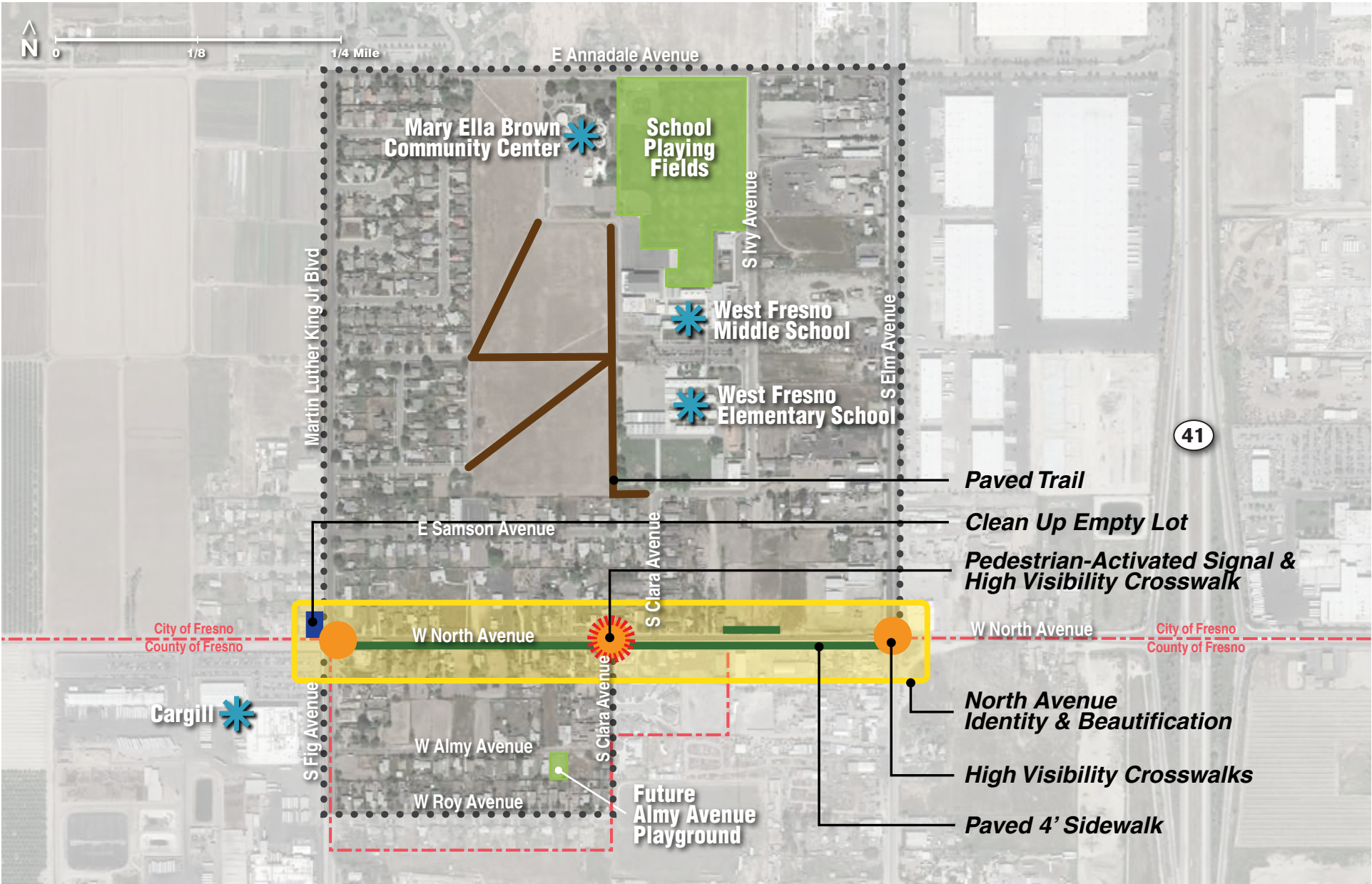
After gaining feedback from many residents and stakeholders in the 41 and North neighborhood, this report makes a series of recommendations that strive to create a community whose members are more well-connected to each other and to the greater community of Fresno. We recommend a strong focus on amenities for those living and working in the neighborhood, including access to healthy food, laundry services, and open space. Safety has also been a huge concern throughout this study: major upgrades to the road cross sections need to be made in order to make the neighborhood more pedestrian and bike-friendly. Currently, North Avenue in particular is dominated by fast car and semi-truck traffic, making what should be a residential road into a commercial highway. This plan aims to provide access for those cars and trucks that need to use these routes, but mitigate their speed and enhance safety for all modes of transportation. Ideally, the residents of this neighborhood would like to create a unique sense of place, enhancing the space to establish an identity. This report will recommend several ways in which, in the near and long term, these goals can be achieved for all stakeholders.

3.2 Immediate Needs

After some initial study, some key aspects of the neighborhood were identified as needing improvement immediately. However, an immediate need does not mean these will be immediately provided, as implementation will take time due to the need to secure funding sources. The strategies that should be implemented as soon as possible are as follows:

- High visibility crosswalks at North intersections with MLK/ Fig, S. Clara, and Elm
- Pedestrian Activated Signal at S. Clara
- Pave trails on vacant school site
- Paved 4' sidewalk on south side of North Ave
- North Avenue identity and beautification projects
- Clean up empty lot at North and MLK

Figure 3.1: Summary of Immediate Needs



3.3 Circulation Network

The future network for all modes adds greater connectivity by completing the grid and reducing block sizes to a walkable scale by adding new streets where today there are large undeveloped, or under-developed, lots. A grid of streets is added to the open space by the West Fresno Elementary and Middle School, connecting the residential areas to the west and southwest to the school and serving future development of the open space. New streets connect S Elm Avenue and S Ivy Avenue to serve future development and create pedestrian scale blocks with greater connectivity. In the southeast corner of the project area, W Roy Avenue could extend through to S Elm Avenue and S Ivy Avenue could extend across W North Avenue to W Roy Avenue.

Pedestrian

The near term pedestrian improvements would tackle the most dangerous and most used parts of the neighborhood. Particular attention would be paid to North Ave, creating a safer pedestrian environment along this dangerous highway by completing the sidewalk network. The plan would pave and formalize the existing crossings across the open space next to the school to provide immediate and clear access to the community center and school

Figure 3.2: Near Term Pedestrian Network

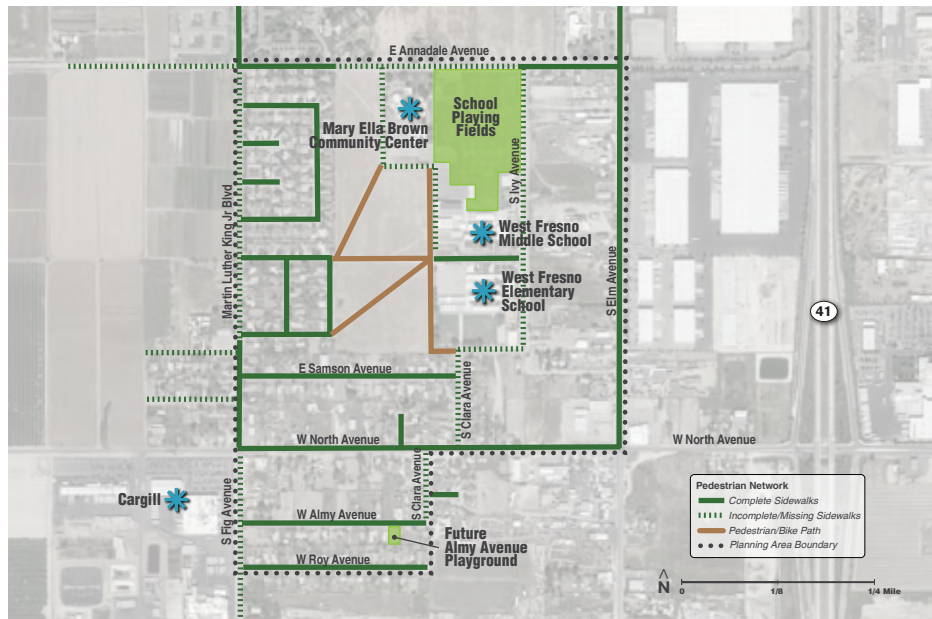
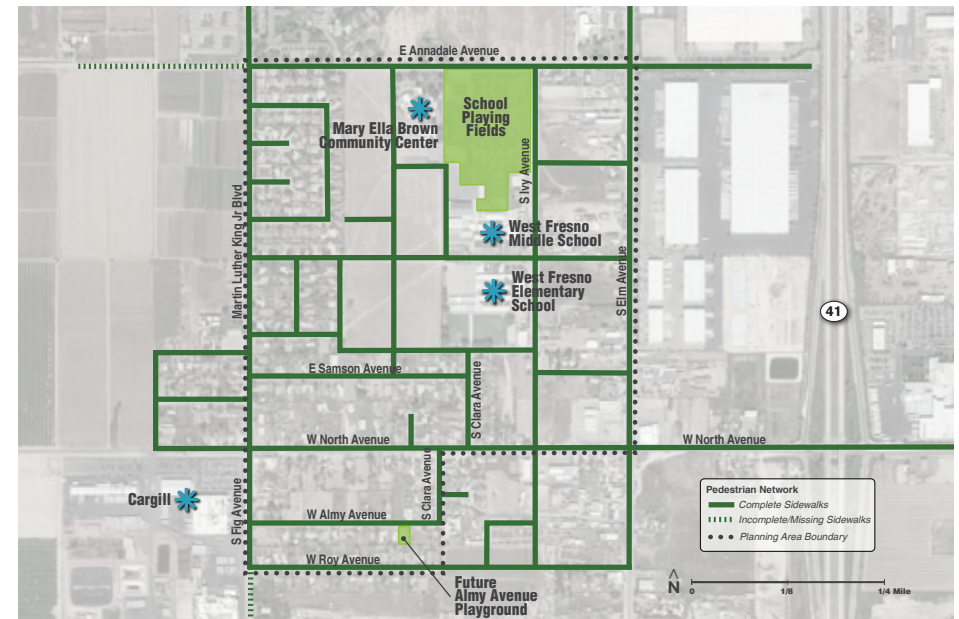


Figure 3.3: Long Term Pedestrian Network



facilities. The long term vision for the pedestrian network continues to fill in any gaps currently existing in the plan's connectivity, completing sidewalks on all roads in the neighborhood, and adds enhanced pedestrian crossings to aid crossing major streets. Roads with complete sidewalks would potentially be added through the open space in the center of the neighborhood in order to provide greater connectivity from either side.

Bicycle

While bicycling is comfortable on the existing quiet neighborhood streets, the lack of bicycle facilities on the main thoroughfares such as W North Ave, Martin Luther King Jr Blvd and E Annadale Ave are barriers to making trips between residential areas and neighborhood destinations. The near term proposed bicycle network therefore incorporates bicycle lanes or cycle tracks on all major streets, with residential streets remaining shared facilities as today. The long term plan would take into account bike use on any formalized new streets in center open space to provide even more connectivity through the neighborhood.

Figure 3.4: Near Term Bicycle Network

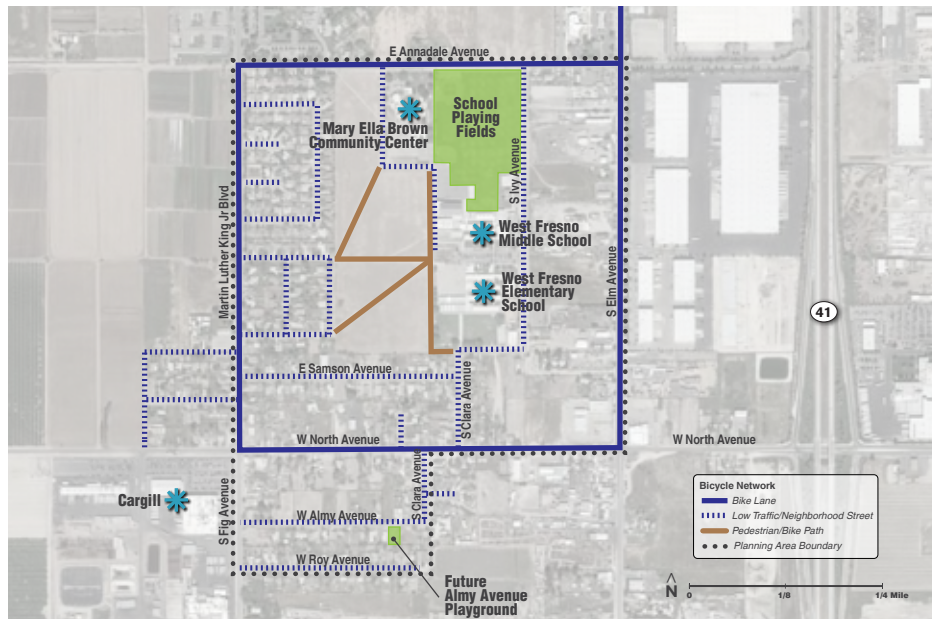
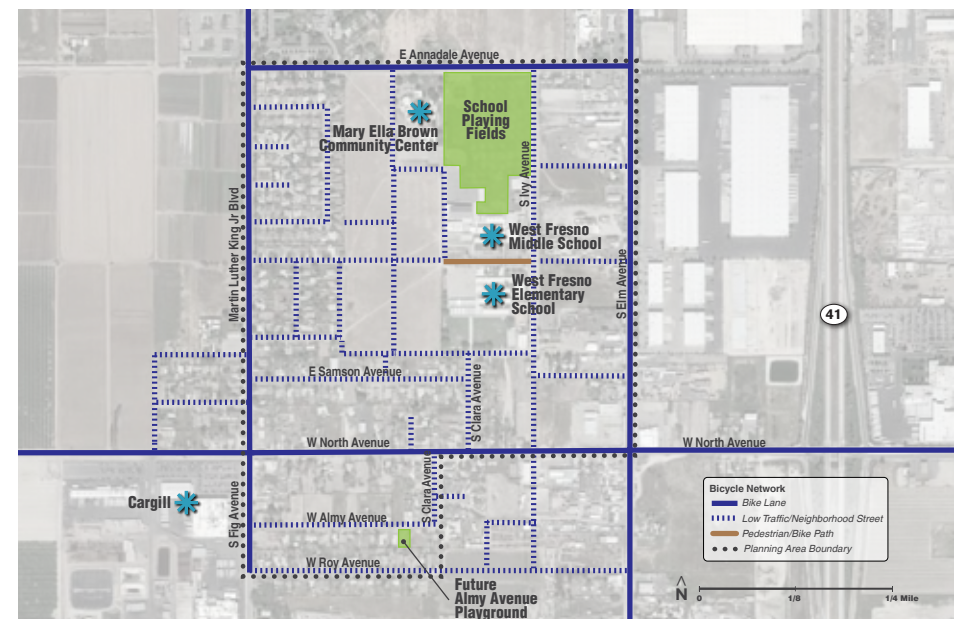


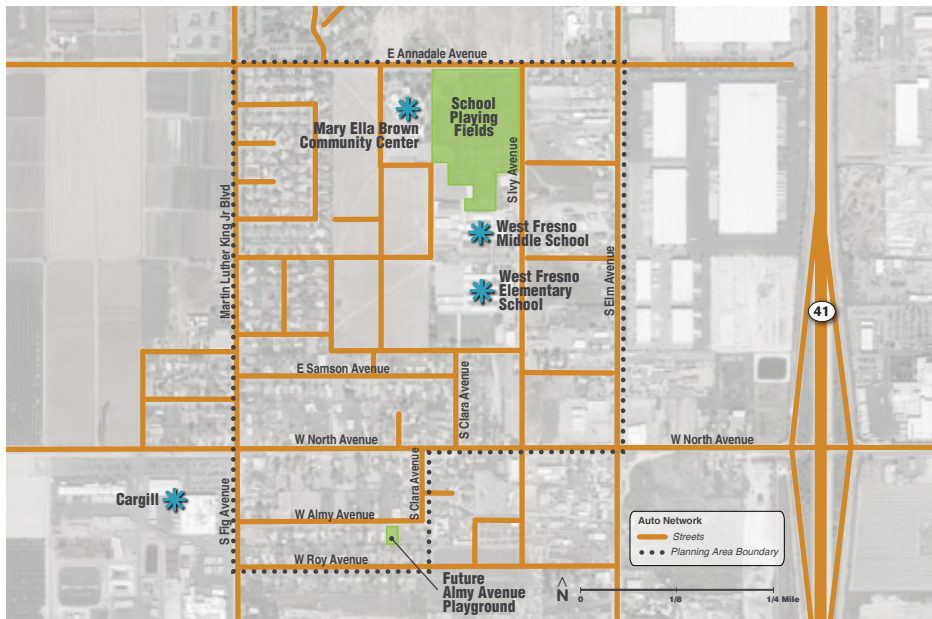
Figure 3.5: Long Term Bicycle Network



Auto

The existing network for vehicles is maintained, with new streets adding connections as described above. Where City of Fresno projections show that existing street capacity exceeds future traffic demand, street designs have been revised to create facilities that accommodate people walking and bicycling.

Figure 3.6: Long Term Auto Network

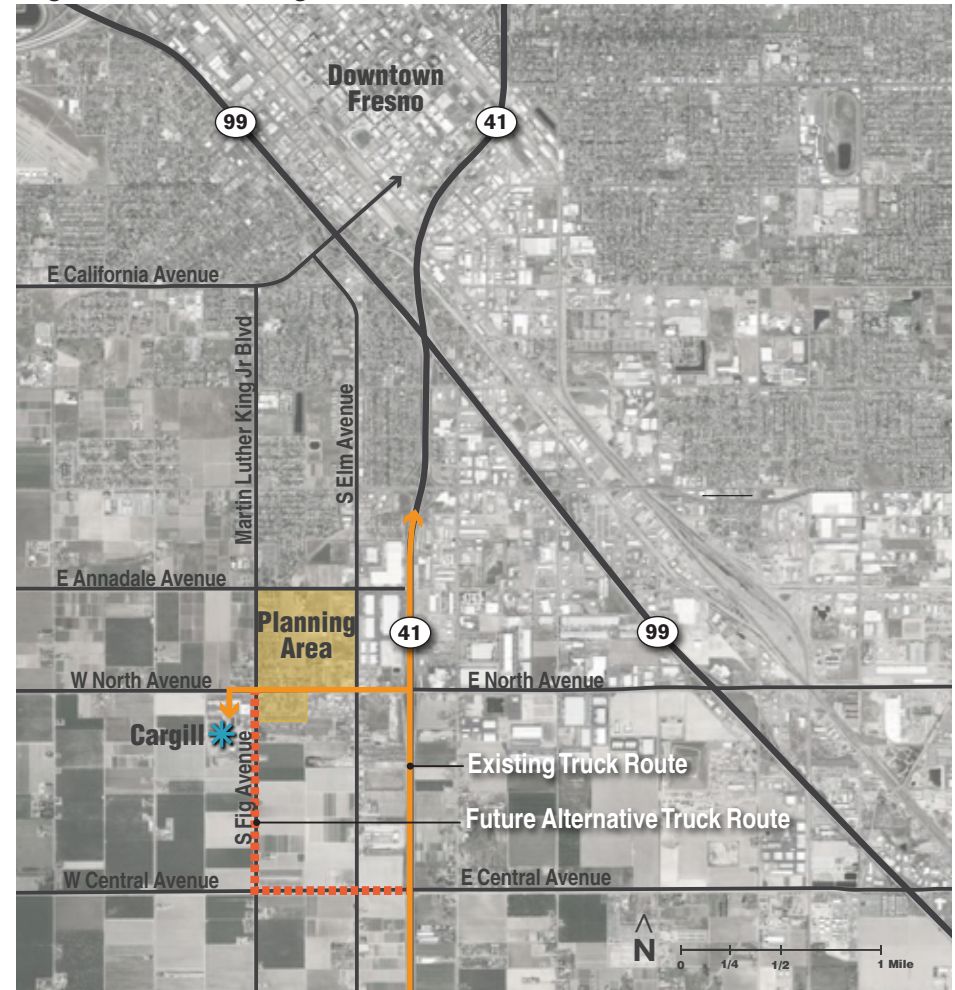


Truck Routes

The daily volume of trucks along W North Ave is a long standing concern for residents, both because of noise and fears for children walking to school. Representatives from Cargill took part in the community workshops, and were open to investigating alternatives that might benefit the community. One of the most popular ideas to emerge was that trucks could potentially exit SR41 at Central Ave, the next junction south from W North Ave, and come up to Cargill via S Fig Ave. S Fig Ave lies in Fresno County, so the project team discussed this idea with the manager of the road maintenance and operations division. While they have no theoretical objection to Cargill routing their trucks via W Central Ave, there are some practical problems. The pavement condition on the portion of W Central Ave between S Elm Ave and S Fig Ave is currently rated as “fair”, but would rapidly deteriorate if subjected to heavy truck traffic. In addition, the road is only 19’ wide with no shoulder in places, due to an irrigation canal - this is insufficient for two-way operation of trucks. The County has no current plans to widen Central Ave, and since the street is in the City of Fresno’s sphere of influence would likely let the City lead any improvement project.

In the short term, the impact of trucks on residents in the neighborhood will be mitigated through reduced speeds on W North Ave and improved pedestrian crossings. In the long term rerouting trucks from W North Ave to Central Ave may be possible, but it depends on the City of Fresno or a developer widening Central Ave to make two-way truck operations possible.

Figure 3.7: Existing & Recommended Truck Routes



3.4 North Avenue

Near Term

The near term preferred cross-section would be a 60' wide roadway. It would have a two way buffered cycle track on the south side of street, a parking lane on the north side of street, two travel lanes, and a temporary asphalt path on the south side (Figures 3.8-3.10). The community prefers this option because it preserves on-street parking options. This cross section could also be enhanced by bulb-outs, additional street trees, pedestrian lighting, and gateway elements to define the neighborhood.

Figure 3.8: North Avenue Near Term Community-Preferred Cross-Section // Cycle Track with On-Street Parking

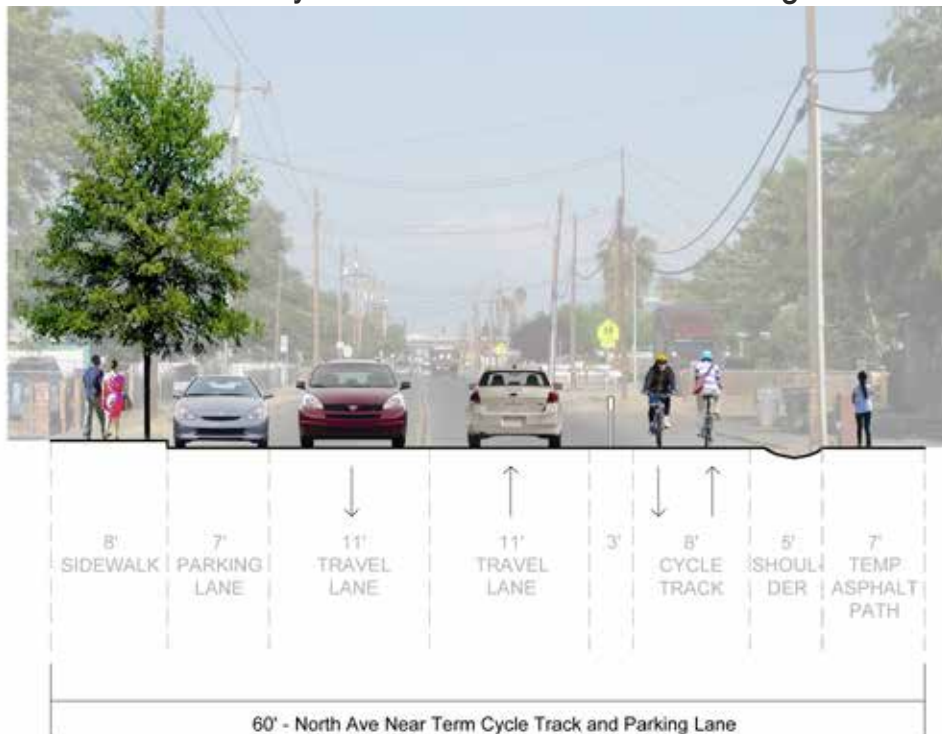


Figure 3.9: Cycle Track Treatment at Driveway Crossing



Source: National Association of City Transportation Officials, www.nacto.org

Figure 3.10: North Avenue Near Term Community-Preferred Visualization // Cycle Track with On-Street Parking



An alternative cross section would include buffered bike lanes on each side of the street, no on-street parking, two travel lanes, and a temporary asphalt path on the south side (Figures 3.11-3.12). This option is preferred by Fresno DPW; DPW expressed concern about safety related to driveway crossings for the cycle track option. However, City has not developed standards for cycle tracks and therefore the concept needs further vetting. Similar to the preferred cross section, this option could be enhanced with more street trees, pedestrian lighting, and gateway elements.

Figure 3.11: North Avenue Near Term Alternative Cross-Section // Bike Lanes without On-Street Parking



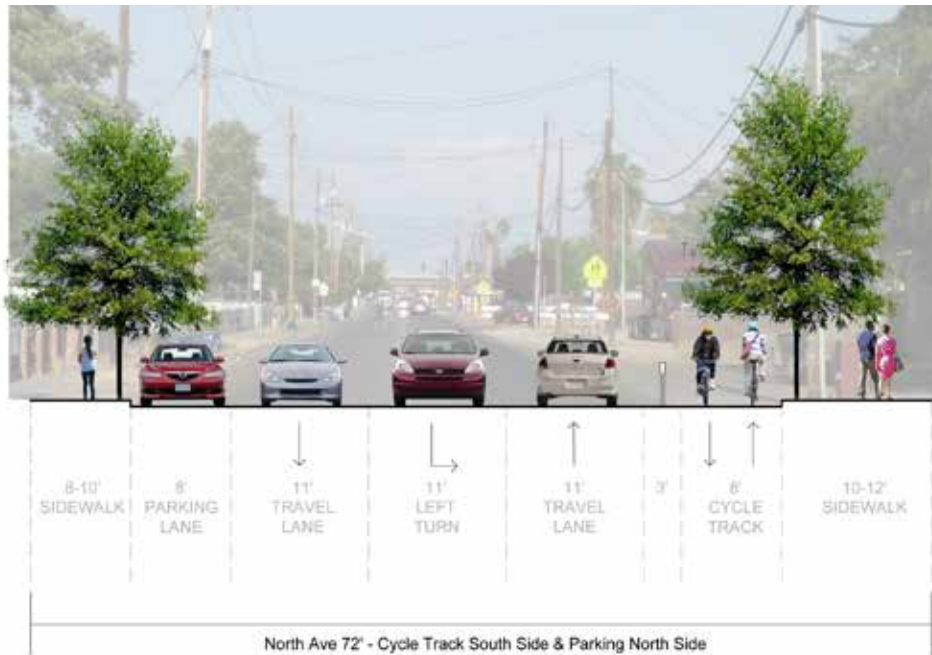
Figure 3.12: North Avenue Near Term Alternative Visualization // Bike Lanes without On-Street Parking



Long Term

The long term preferred cross-section is a 72' wide roadway. It includes a two way buffered cycle track on the south side of street, parking lane on the north side of street, two travel lanes, one turning lane, and a 10-12' sidewalk on the south side (Figure 3.13). The community prefers this option because it preserves on-street parking options. This option can also be enhanced by the addition of bulb-outs, high visibility crosswalks, street trees, and pedestrian lighting.

Figure 3.13: North Avenue LongTerm Community-Preferred Cross-Section // Cycle Track with On-Street Parking



An alternative long term cross-section would include buffered bike lanes on each side of the street, no on-street parking, two travel lanes, one turn lane, and a 10-12' sidewalk on the south side (Figure 3.14). This option is preferred by Fresno DPW; DPW expressed concern about safety related to driveway crossings for the cycle track option. There would also be the opportunity for enhancements such as high visibility crosswalks, street trees, and pedestrian lighting.

Figure 3.14: North Avenue Long Term Alternative Cross-Section // Bike Lanes without On-Street Parking



Long Term Parcel Acquisition

In order to achieve the widening of the roadway in the long term to 72', existing property lines will have to be assessed in relation to the needed corridor. Whether the road corridor is determined from the center line of the street or the predominant north side parcel boundary, some strategic parcel acquisition will need to happen in order to construct the new roadway (See Figures 3.15 & 3.16).



Pedestrian Activated Traffic Signal

The rate at which drivers yield to pedestrians at S Clara Ave is low, in part because the traditional parallel striped crosswalk is hard to see for drivers, and in part because high speeds correlate to low yielding rates. It is recommended to install a pedestrian-activated signal at intersection of North and S. Clara Avenue in combination with high visibility cross walk. This is a highly utilized crossing connecting two residential neighborhoods across North Avenue, which points to a major need for enhanced pedestrian crossing infrastructure. This is of high importance, particularly in light of high speeds and truck traffic on North Avenue. In addition, it is recommended that SW Fresno Specific Plan take a closer look at this issue and do amore in-depth analysis.



Example of a pedestrian-activated traffic signal

Figure 3.15: Parcel Aquisition from Street Center Line

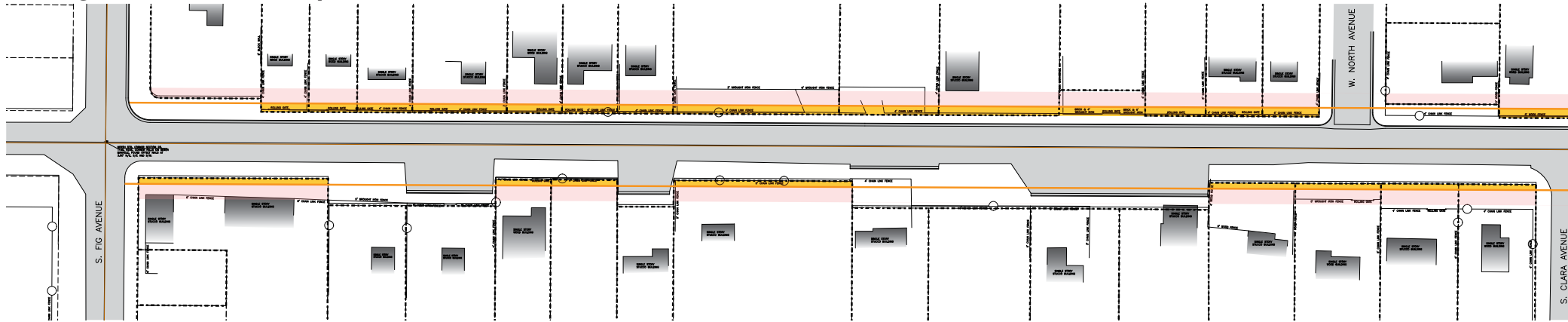
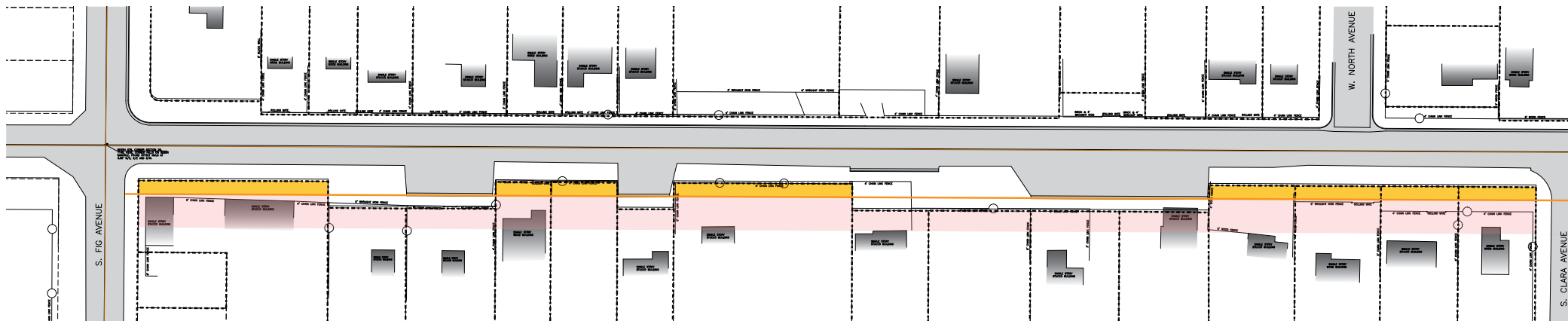
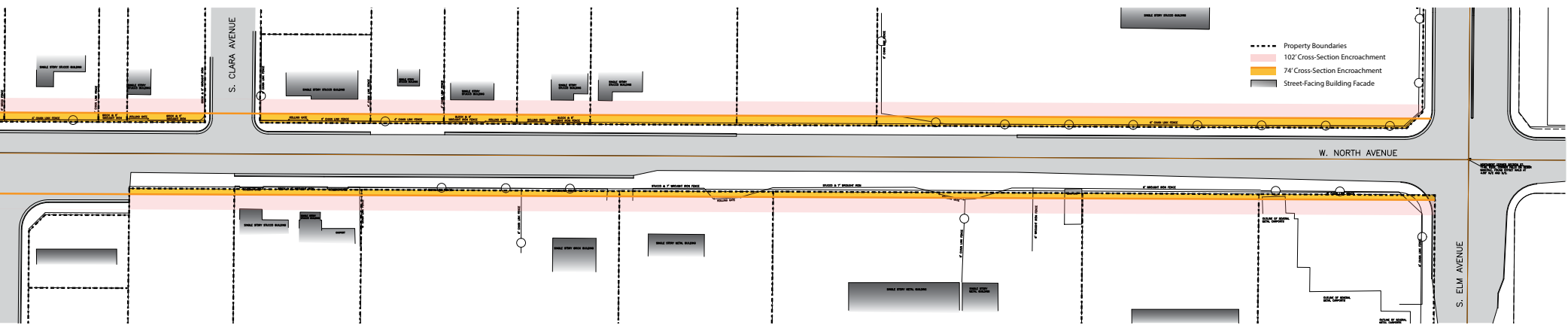
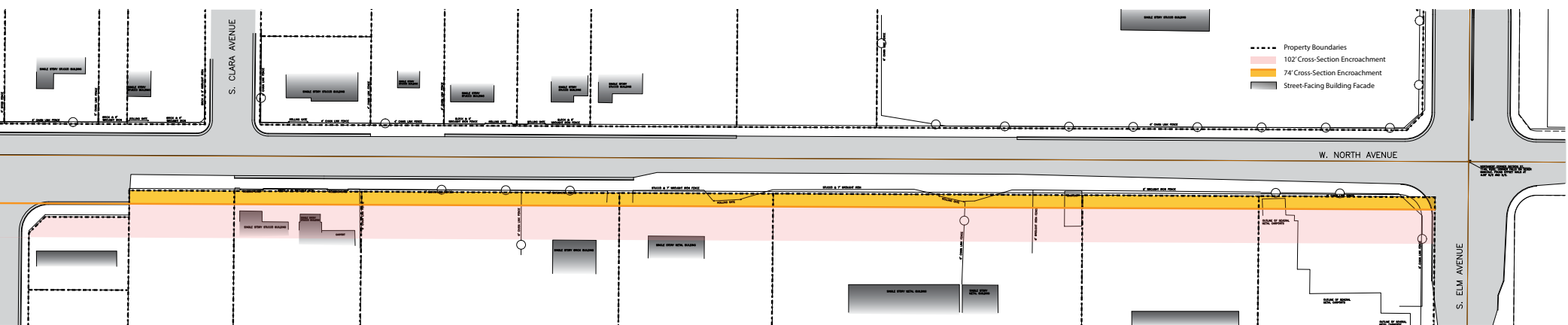


Figure 3.16: Parcel Aquisition from Predominant North Side Parcel Boundary





Source: City of Fresno 2015; WRT 2015



Source: City of Fresno 2015; WRT 2015

School Zone Implementation

The rate at which drivers yield to pedestrians at S Clara Ave is low, in part because the traditional parallel striped crosswalk is hard to see for drivers, and in part because high speeds correlate to low yielding rates. One strategy for implementing an enhanced crosswalk at W North Ave and S Clara Ave is to establish a school zone, which in addition to a high visibility crosswalk would permit additional signage and lowering the speed limit on that stretch of W North Ave. Under California Vehicle Code 22358.4 a school zone can be established within 1,000 feet of school property, and the intersection in question is well within this distance. However, it also specifies that the street must be posted 30 mph or less, while W North Ave is posted at 40 mph. City traffic engineers are still clarifying how local ordinances vary from the state vehicle code, since there are many school zones on 40 mph streets in Fresno:

- Hoover High, First St
- Del Mar Elementary, Ashlan
- Bullard High, N Palm Ave
- Hamilton school, Clinton at Palm
- Roosevelt, Tulare
- McClain, Cedar
- Brody Elementary
- Gibson, Barstowe
- Sunnyside High, Kings Canyon at Peach

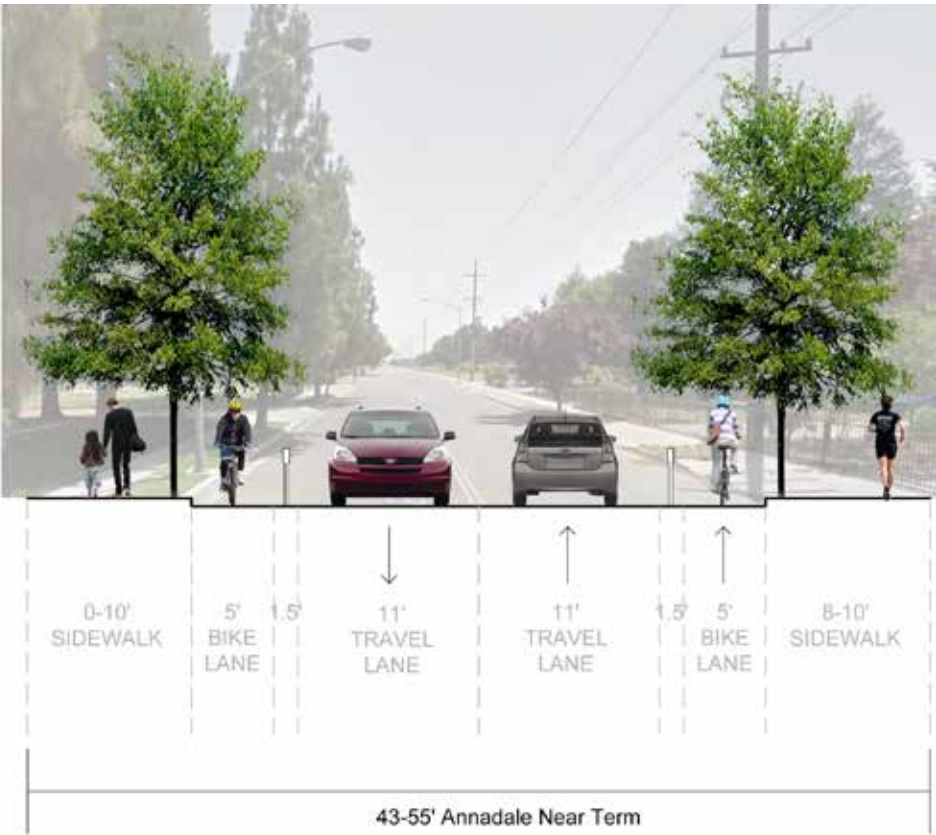


3.5 Annadale Avenue

Near Term

The near term cross-section for Annadale Avenue would be 43-55' wide with two travel lanes (Figure 3.17). The proposed section adds buffered bicycle lanes to provide an important east-west connection, and to link to the Mary Ella Brown Community Center.

Figure 3.17: Annadale Avenue Near Term Cross-Section



Long Term

The long term cross-section for Annadale Avenue would be a 72' wide roadway with two travel lanes, one turn lane, and buffered bike lanes on each side of the street (Figure 3.18).

Figure 3.18: Annadale Avenue Long Term Cross-Section



3.6 Martin Luther King Jr. Blvd

Near Term

MLK Jr. Blvd. will need two different cross sections due to great variation in street width along the corridor (Figure 3.19). The near term cross-section for the zone from Annadale to Chester and the zone from Hardy to North will be similar (Figure 3.20). It is recommended that the roadway be 54-68' wide with two travel lanes, on-street parking on the east side, and an 8-11' two way cycle track on the west side with a 3-5' buffer.

Figure 3.19: MLK Blvd Near Term Street Segments



The other near term cross-section will be a 78'-82' wide roadway from Chester to Hardy. It will have two travel lanes, a turning lane, a raised pedestrian refuge, on-street parking on the east side, and a 10' two way cycle track on west side with a 3' buffer (Figure 3.21).

Figure 3.20: MLK Blvd Near Term Cross-Section // Annadale to Chester & Hardy to North



Long Term

The long term cross-section for the who corridor would be an 84' wide roadway with two travel lanes and a center turning lane (Figure 3.22). It would have a raised pedestrian refuge, on-street parking on the east side, a 10' two way cycle track on the west side with a 3' buffer. This scheme would more or less mimic the near term cross-section between Chester and Hardy.

Figure 3.21: MLK Blvd Near Term Cross-Section // Chester to Hardy

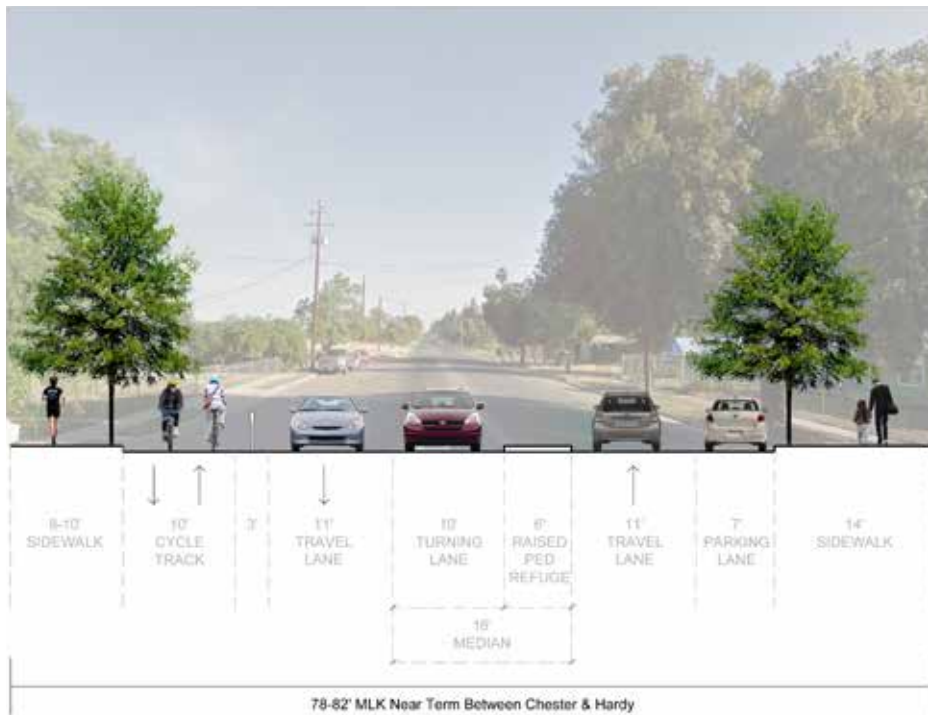


Figure 3.22: MLK Blvd Long Term Cross-Section



3.7 Elm Avenue

Long Term

There is no recommended near term solution for Elm Avenue. However, for a long term solution it is recommended that the roadway be 84' wide with two travel lanes, a center median, on-street parking on both sides, and 5' buffered bike lanes on either side (Figure 3.23). A cost effective way to calm the street as properties are redeveloped to more active uses, particularly on the west side, would be to convert the outside travel lane to on-street parking. The on-street parking could serve new active uses, while calming the street, and providing an additional barrier between the travel lane and bicycle lane.

Figure 3.23: Elm Avenue Cross-Section



3.8 Land Use Alternatives

Alternative 1: Community Park

Land Use Alternative 1 generally aligns with the Fresno General Plan land use map, featuring residential on the west side of the planning area, a business park zone on the east side with public uses maintained for school property in the center (Figure 3.24). In addition, the key enhancements to the General Plan land use map are as follows:

- Retail/commercial nodes at North/Elm and Annadale/Elm intersections to provide sorely needed amenities for the neighborhood (e.g. grocery, laundry, convenience retail) with some enhancements.
- Residential uses on the east side of Ivy, backing up to the business park zones. This makes Ivy a two-sided street and provides “eyes on the street” for the school.
- Residential also continues south across North Ave, connecting with residential uses on Almy and Roy.
- Added park facility on the west side of the planning area to provide much needed open space for the neighborhood. The park is next to a residential zones and the existing community center.
- Small joint-use recreation facility to be shared by the school and community, located adjacent to both.
- Vacant parcels currently owned by school would be developed for residential, park, and expanded school facilities.
- Possibility of converting Tupman to the “front door” of the school campus.

Alternative 2: Joint Use Fields

Alternative 2 keeps with many of the principles of Alternative 1 (Figure 3.25). The remaining few differences are as follows:

- A larger community/school district joint-use facility on existing school playing fields. This negates the need for a separate park facility.
- More residential use on the west side of the planning area.

Figure 3.24: Land Use Alternative 1 // Community Park

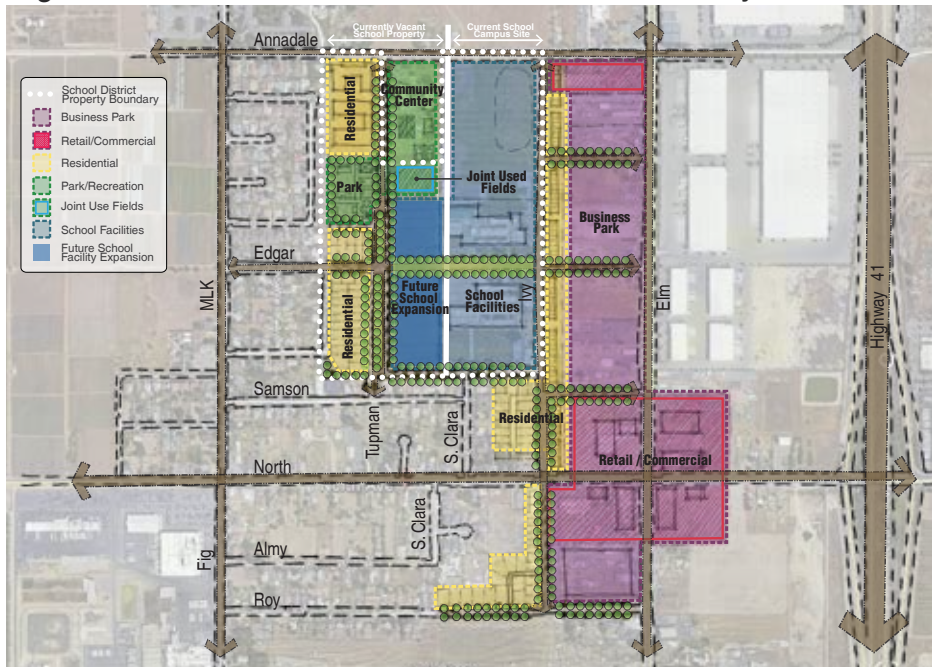


Figure 3.25: Land Use Alternative 2 // Joint Use Fields

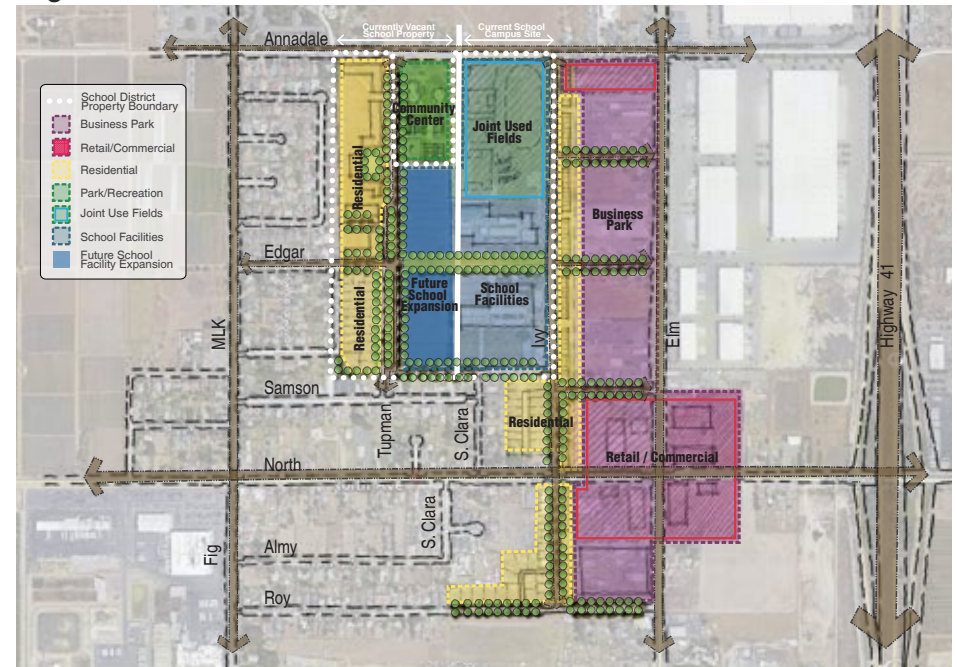


Figure 3.26: Residential Development Types



Single Family



Apartments



Lofts



Townhomes

3.9 Infrastructure

The project area lacks basic infrastructure for similar residential neighborhoods in Fresno. As infill occurs over time, new service upgrades may be necessary to accommodate the demands placed on utilities. This plan recognizes the opportunity to upgrade existing utilities as part of street improvements. Major repaving and road replacement projects are opportune times to also make underground utility repairs. In the case of North Avenue, such projects will provide an opportunity to install missing infrastructure to address stormwater. Residents have identified localized flooding and ponding as a major issue that impedes circulation and inconveniences residents.

Stormwater

The complete streets alternatives will provide an opportunity for the expansion of curb and gutter improvements. A completed curb and gutter system will allow for the efficient drainage of roadway flows, reducing ponding. Collection piping and inlets can also be incorporated to further improve drainage along the corridor.

Power & Telecommunications

By undergrounding the existing overhead power lines the project can improve upon the existing visual aesthetics. The underground lines will also improve service reliability within the area, by reducing weather and collision related disruptions. The project will also allow opportunities for the undergrounding of telecommunications services. Trench locations for utility improvements are available but design limitations may be encountered due to the existing large diameter sewer lines within the corridor.

Phasing

Initial phasing in the short term will focus on immediate safety issues. Options for infrastructure improvements include the construction of drainage swales along the corridor to help alleviate roadway flooding.

In the long term, corridor improvements would be of a more comprehensive nature, and may include a complete stormwater collection system including, curb and gutter with inlets and piping. Also as part of complete street improvements, existing overhead utilities would begin to be undergrounded.



4. IMPLEMENTATION

4.1 Project Matrix

It is the specific goal of residents and project stakeholders to implement the projects identified in this plan. Chapter 3 outlines projects for implementation according to immediacy and geographic location. Chapter 4 provides additional information in tables to help guide implementation. The first, table 4.1 describes features of each project, responsible agency, and potential funding sources. Table 4.2 lists planning level cost budget ranges for each project.

Table 4.1

Improvements	Description	Responsible Agency	Potential Funding Source
Immediate Needs			
High visibility Crosswalks Along North Avenue Intersections	<ul style="list-style-type: none"> Repaint existing crosswalks on North Avenue with Continental style bars Cross street locations include MLK/ Fig, S. Clara, and Elm 	City of Fresno: Public Works	Caltrans Active Transportation Grant, General Fund; SR2S Grant, Sustainable Communities Grants
Pedestrian Activated Signal at Intersection of North Avenue and S. Clara	<ul style="list-style-type: none"> Complete engineering design to be compatible with current and near term conditions Install at existing crosswalk 	City of Fresno: Public Works	Caltrans Active Transportation Grant, General Fund; SR2S Grant, Sustainable Communities Grants, Metro Planning Grants
Trail Improvements at Vacant School Site	<ul style="list-style-type: none"> Provide 12' wide asphalt path with 4' gravel shoulder on one side Restrict vehicle access with removable bollards, posts, and large rocks 	City of Fresno: Planning, Public Works; Washington Unified	Caltrans Active Transportation Grant, General Fund; SR2S Grant, Sustainable Communities Grants, Metro Planning
Interim Sidewalk Paving on North Avenue	<ul style="list-style-type: none"> Install 4' wide temporary asphalt path on south side of road to facilitate pedestrian access where no sidewalk currently exists Establish as interim improvement due to potential future ROW expansion 	City of Fresno: Public Works	Caltrans Active Transportation Grant, General Fund; SR2S Grant, Sustainable Communities Grants, Metro Planning
North Avenue Identity and Beautification Projects	<ul style="list-style-type: none"> Conduct community based projects to improve existing conditions through clean up, repair, and enhancement of private property frontages and public areas Install permanent and temporary decorative elements such as youth art, gateway signage, and other forms of community identity Consider placement on private fences and in the public ROW safely out of the path of travel 	Habitat for Humanity; City of Fresno: Planning, Public Works	Sustainable Communities Grants; Private Donations; General Fund, CMAQ Funds, Property, Business Improvement District, CALFire

Improvements	Description	Responsible Agency	Potential Funding Source
Clean up Empty Lot at North and MLK	<ul style="list-style-type: none"> Conduct community based meetings about appropriate user activities and potential improvement strategies Remove trash and install features such as seating, shade, and trash cans that support desired community activities. 	Habitat for Humanity; City of Fresno: Planning, Public Works	Community Grants; Private Donations; General Fund; Smart Growth America Brownfield Assessment and Cleanup Grants, PBID
Near Term			
Establish Alternate Truck Route	<ul style="list-style-type: none"> Prepare study of alternate truck routes in coordination with City, County, and Caltrans Include business owners as partners and conduit to independent truck drivers. Identify and install any road improvements to support relocated route Restrict truck access on North 	City of Fresno: Planning, Public Works; Fresno County; Caltrans	Caltrans Active Transportation Grant, General Fund; SR2S Grant, Community Grants, CMAQ Funds, TIGER Grants
North Avenue Complete Street Enhancements	<ul style="list-style-type: none"> Finalize design as part of SW Specific Plan to best support community's complete street goals and national street design standards Implement new lane striping as part of planned repaving project 	City of Fresno: Planning, Public Works	Earmarked City CIP; Caltrans Active Transportation Grant, General Fund; SR2S Grant, Community Grants, CMAQ Funds, Sustainable Communities Grant, Transportation, Community, and System Preservation Program (TCSP), TIGER Grants, Fresno COG (transportation grants), SJVAPCD, PBID, CALFire
School Zone Review	<ul style="list-style-type: none"> Complete review of school zone speed limit reductions Implement new controls and signage accordingly 	City of Fresno: Planning, Public Works	General Fund, SR2S Grant
Annadale Avenue Complete Street Enhancements	<ul style="list-style-type: none"> Finalize design as part of SW Specific Plan to best support community's complete street goals and national street design standards Implement new lane striping as part of future repaving project or as stand-alone striping project 	City of Fresno: Planning, Public Works	Caltrans Active Transportation Grant, General Fund; SR2S Grant, Sustainable Communities Grants, Transportation Community, and System Preservation Program (TCSP), TIGER Grants, Fresno COG (transportation grants), SJVAPCD, PBID, CALFire

Improvements	Description	Responsible Agency	Potential Funding Source
MLK Boulevard Complete Street Enhancements	<ul style="list-style-type: none"> Finalize design as part of SW Specific Plan to best support community's complete street goals and national street design standards Implement new lane striping as part of future repaving project or as stand-alone striping project 	City of Fresno: Planning, Public Works	Caltrans Active Transportation Grant, General Fund; SR2S Grant, Sustainable Communities Grants, CMAQ Funds, Transportation, Community, and System Preservation Program (TCSP), TIGER Grants, Fresno COG (transportation grants), SJVAPCD, PBID, CALFire
Long Term			
North Avenue Complete Street + Infrastructure Enhancements	<ul style="list-style-type: none"> Finalize long term design as part of SW Specific Plan to best support community's complete street goals and national street design standards Implement full street reconstruction project including additional ROW acquisition, utility infrastructure upgrades, new storm drainage, lighting, street paving and striping, sidewalks, and street trees. 	City of Fresno: Planning, Public Works	Caltrans Active Transportation Grant, General Fund; SR2S Grant, Sustainable Communities Grants, Transportation, Community, and System Preservation Program (TCSP), TIGER Grants, Fresno COG (transportation grants), SJVAPCD, PBID, CALFire
Annadale Avenue Complete Street + Infrastructure Enhancements	<ul style="list-style-type: none"> Finalize long term design as part of SW Specific Plan to best support community's complete street goals and national street design standards Implement full street reconstruction project including additional ROW acquisition, utility infrastructure upgrades, new storm drainage, lighting, street paving and striping, sidewalks, and street trees. 	City of Fresno: Planning, Public Works	Caltrans Active Transportation Grant, General Fund; SR2S Grant, Sustainable Communities Grants, Transportation, Community, and System Preservation Program (TCSP), TIGER Grants, Fresno COG (transportation grants), SJVAPCD, PBID, CALFire

Improvements	Description	Responsible Agency	Potential Funding Source
MLK Boulevard Complete Street + Infrastructure Enhancements	<ul style="list-style-type: none"> Finalize long term design as part of SW Specific Plan to best support community's complete street goals and national street design standards Implement full street reconstruction project including additional ROW acquisition, utility infrastructure upgrades, new storm drainage, lighting, street paving and striping, sidewalks, and street trees. 	City of Fresno: Planning, Public Works	Caltrans Active Transportation Grant, General Fund; SR2S Grant, Sustainable Communities Grants, Transportation, Community, and System Preservation Program (TCSP), TIGER Grants, Fresno COG (transportation grants), SJVAPCD, PBID, CALFire
Elm Avenue Complete Street + Infrastructure Enhancements	<ul style="list-style-type: none"> Finalize long term design as part of SW Specific Plan to best support community's complete street goals and national street design standards Implement full street reconstruction project including additional ROW acquisition, utility infrastructure upgrades, new storm drainage, lighting, street paving and striping, sidewalks, and street trees. 	City of Fresno: Planning, Public Works	Caltrans Active Transportation Grant, General Fund; SR2S Grant, Sustainable Communities Grants, Transportation, Community, and System Preservation Program (TCSP), TIGER Grants, Fresno COG (transportation grants), SJVAPCD, PBID, CALFire
Land Use and Development Strategies	<ul style="list-style-type: none"> Incorporate land use and circulation goals identified in this study to future policy documents such as the SW Specific Plan Continue outreach to property owners/ stakeholders such as the Washington Unified School District, and City of Fresno Parks and Recreation; incorporate goals into their facilities master plans. Consider additional property master planning to refine layout of circulation networks, land use, and open space. 	City of Fresno: Planning, Public Works	General Fund; Washington Unified; Sustainable Communities Grants, CALFire

4.2 Conceptual Design Cost Estimate For Planning

The cost estimate budgets represent a wide range of potential outcomes and they should expand as needed to accommodate specific elements.

Table 4.2

Description	Low Range	High Range	Notes and Assumptions
Immediate Needs			
High visibility Crosswalks Along North Avenue Intersections	\$20,000	\$35,000	Assumes Continental style striping on all North Ave. intersections within the project area, including MLK/Fig, Santa Clara. And Elm. Striping assumed to be thermoplastic
Pedestrian Activated Signal at Intersection of North Avenue and S. Clara	\$110,000	\$200,000	Assumes design and installation of pedestrian activated signal, compatible with future designs
Trail Improvements at Vacant School Site	\$175,000	\$295,000	Assumes 12' wide asphalt trail, with gravel shoulder, and accompanying traffic controls and signage
Interim Sidewalk Paving on North Avenue	\$15,000	\$30,000	Assumes 4' wide temporary asphalt path, only at locations along North Avenue where there is no existing sidewalk, and that no ROW acquisition is required.
North Avenue Identity and Beautification Projects	\$5,000	\$100,000	Assumes installation of four decorative monument style signs, and accompanying art installations within project area. It is assumed a majority of materials, labor and design services may be donated for low range.
Clean up Empty Lot at North and MLK	\$5,000	\$40,000	Assumes majority of materials, labor and design services may be donated for low range. High range includes the installation benches, tables, trash cans and shade features

Table 4.2

Description	Low Range	High Range	Notes and Assumptions
Near Term			
Establish Alternate Truck Route	\$35,000	\$60,000	Assumes complete traffic study for analyzing truck route impacts, working with impacted agencies and businesses and installation of signage.
North Avenue Complete Street Enhancements	\$20,000	\$275,000	Assumes, street repaving and vehicle travel lane striping is included in the City's capital improvement project. This estimate includes additional costs for bike lane striping, signage and delineators. High range includes pedestrian lighting every 150', tree plantings every 300' and installation of bulbouts at pedestrian crossings
School Zone Review	\$2,500	\$5,000	Assumes preparation of a speed study for North Ave and Santa Clara Ave.
Annadale Avenue Complete Street Enhancements	\$20,000	\$35,000	Assumes, street repaving and vehicle travel lane striping is included in the City's capital improvement project. This estimate includes additional costs for bike lane striping, signage and delineators and tree planting
MLK Boulevard Complete Street Enhancements	\$40,000	\$75,000	Assumes, street repaving and vehicle travel lane striping is included in the City's capital improvement project. This estimate includes additional costs for bike lane striping, signage and delineators. Pedestrian refuges are also assumed for the approximately 600' long Chester to Hardy segment

Table 4.2

Description	Low Range	High Range	Notes and Assumptions
Long Term			
North Avenue Complete Street + Infrastructure Enhancements	\$1,450,000	\$3,750,000	Assumes complete street construction costs including paving, sidewalks, striping, trees, and lighting. Low Range assumes that overhead utilities are relocated by the Utility provider at no cost. Numbers do not include ROW acquisition which is estimated at \$750,000.
Annadale Avenue Complete Street + Infrastructure Enhancements	\$850,000	\$2,050,000	Assumes complete street construction costs including paving, sidewalks, striping, trees, and lighting. Low Range assumes that overhead utilities are relocated by the Utility provider at no cost. Numbers do not include ROW acquisition which is estimated at \$250,000.
MLK Boulevard Complete Street + Infrastructure Enhancements	\$1,150,000	\$2,350,000	Assumes complete street construction costs including paving, sidewalks, striping, trees, and lighting. Low Range assumes that overhead utilities are relocated by the Utility provider at no cost. Numbers do not include ROW acquisition which is estimated at \$150,000.
Elm Avenue Complete Street + Infrastructure Enhancements	\$40,000	\$75,000	Assumes conversion of existing street section to a two travel lane configuration with bike lanes and on street parking. Assumes cost for street re-striping, delineators and tree plantings. Additional ROW acquisition should not be necessary.
Land Use and Development Strategies	\$20,000	\$80,000	Assumes strategic planning reports prepared by design professionals.

