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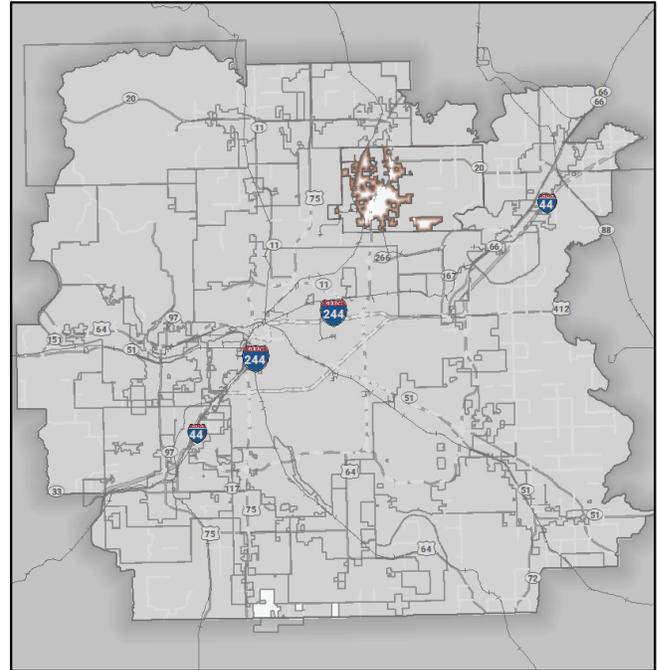
Owasso

Community Overview

Owasso is a northern suburb of Tulsa and the fastest growing city in the region. Owasso's population increased 50 percent between 2000 and 2014 and has a present population of nearly 34,000 residents. The city is connected to Tulsa via US-169 (Mingo Valley Expressway) which facilitates residents' living in Owasso and working in Tulsa.

The original town area of Owasso contains civic buildings, retail and office uses, is centered along Main Street between 86th Street North and 76th Street North. Single-family residential housing is located on either side on small local streets in a modified grid pattern. Other residential development from the 1970s to the present is on curvilinear local streets mixed with the arterial street grid pattern. Residential development has been widespread throughout Owasso's borders, and the city continues to annex land expanding its footprint into undeveloped or less intensely developed areas. Major destinations such as shopping centers, hospitals and the new Tulsa Tech campus are located along the US-169 corridor. Schools are located throughout the community, with the high school, mid-high and sixth grade center located near one another along the 129th East Avenue corridor.

Owasso is not currently connected to any other regional city by a long-distance trail network. Arterial sidewalk coverage is adequate throughout the city, although nearly all of the



underpasses and overpasses crossing US-169 lack pedestrian accommodations. The City narrowed a portion of Main Street from four lanes to two lanes between Broadway Street and 76th Street North and added pedestrian streetscape amenities in 2007. Additionally, the Public Works Department oversees a traffic calming program since, begun in 2004, whereby residents can apply for traffic calming elements on street segments in their neighborhood. There are currently no on-street bike facilities in Owasso, but City Council unanimously approved a Complete Streets policy in February 2015 which officials say they hope will lead to a safe network of bicycle and pedestrian facilities.

Walkshop Summary

The Owasso walkshop was conducted on March 13, 2014. The project team, INCOG Staff, City Staff and community members gathered to discuss existing bicycle and pedestrian conditions in the city. The following items were identified as future needs and improvement priorities at the walkshop:

Identified Issue:

Student pedestrian travel at the High School and Mid-High School was identified as a significant

issue. Crossing the intersection at 86th Street and 129th East Avenue and crossing between the two schools were major concerns.

Response:

This school location was chosen as the focus area for Owasso and is addressed in following pages.

Policy Review and Recommendations

Having one of the most progressive codes in the area, Owasso's Zoning Code requires that all buildings, parking areas, public spaces, amenity features, and adjoining developments of similar use, be linked with sidewalks or other type of pedestrian connection. Similarly, the Code calls for the provision of sidewalks along public streets that provide access to the development and the provision of pedestrian refuge islands in parking lots in excess of 250 spaces. The Code also provides for including bicycle parking in certain commercial developments. Owasso's zoning code assigns responsibility for maintenance of street trees in planting strips to the respective homeowners association. Additionally, the code requires maintenance criteria for commercial areas in the event public sidewalks or street trees need repair or replacing.

Block length maximums are also codified by the City of Owasso in its Subdivision Regulations. To this end, the regulations require that all blocks for residential use not exceed 1,320 feet in length. When the block exceeds that maximum length, the Code adds "the City of Owasso may require

a dedicated easement not less than 15 feet in width and a paved crosswalk according to ANSI standards to provide pedestrian access across the block."

No standards for bicycle facility design or the provision of pedestrian scale lighting on trails and sidewalks were found.

Recommendations

- Consider adopting design guidelines for pedestrian and bicycle facilities outlined in the GO Plan and incorporating them into the city design standards manual.
- Consider amending subdivision regulations to require developers to provide pedestrian and bicyclist connection to adjacent community facilities such as schools, community centers, parks and trails. Trails should be provided with a connection if the development is located within ¼ mile.
- Require as part of final plat approvals the provision for trail easements if a trail is identified in the GO Plan.

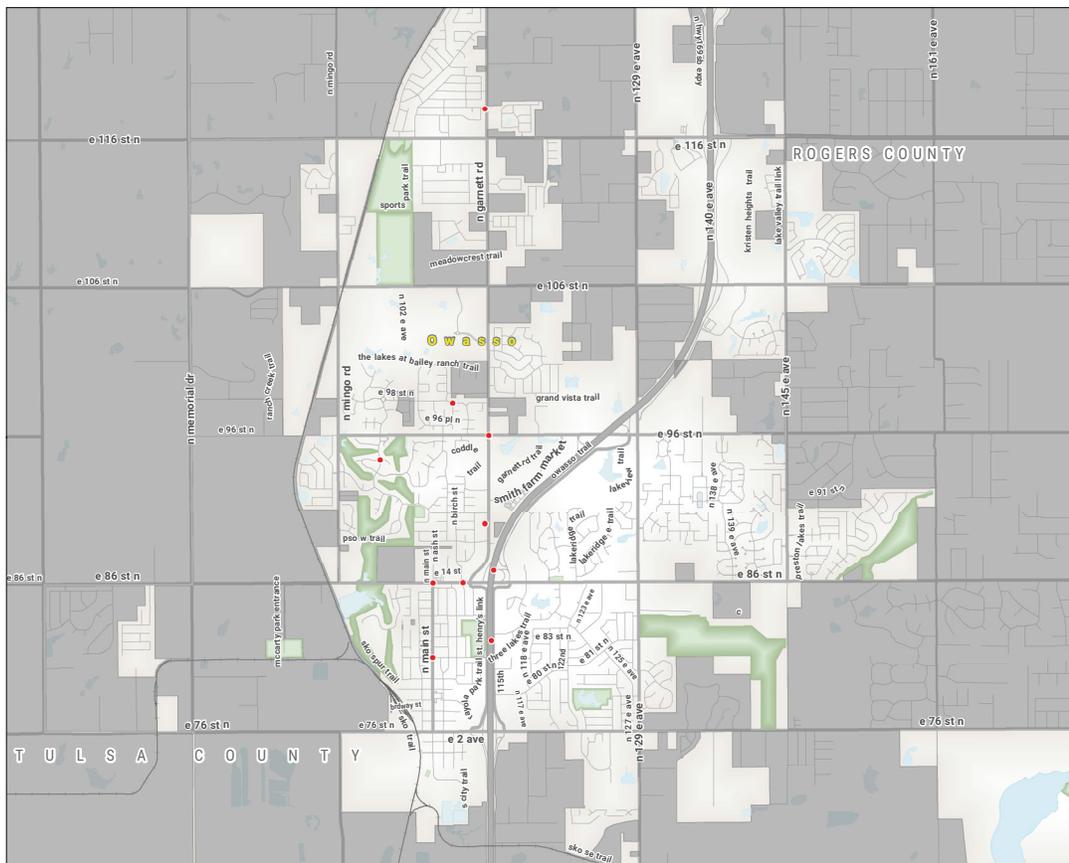
Pedestrian Network Recommendations

The pedestrian facility recommendations in this Plan comprise two elements: a prioritization of known sidewalk gaps on arterial streets and specific infrastructure recommendations for the community's chosen focus area. The Focus Area selected was the intersection of two large arterials, 129th East Avenue and 86th Street North, adjacent to the campuses of both Owasso High School and the Mid-High School.

The map and project list below detail a prioritized set of improvements to fill sidewalk gaps on arterials. Arterial sidewalk gaps are targeted because these streets have the highest traffic volumes and speeds, but also many destinations for pedestrians, as well as some transit routes.

Over 70 percent of the seven pedestrian crashes reported in Owasso in the five years ending July 2014 were located on arterial streets.

While filling sidewalk gaps on arterials may reduce the number of vehicle-pedestrian crashes, many conflicts actually occur at intersections. All of the arterial pedestrian crashes in Owasso occurred at locations with sidewalks on at least one side of the street, so filling gaps would not have had any influence on those crash types. Recommended treatments for arterial intersections appear in Appendix A: Design Guidelines and in Chapter 3: Pedestrian Strategy where some typical safety improvements for major arterial intersections are presented in the concept designs.



- Pedestrian or bicycle crash

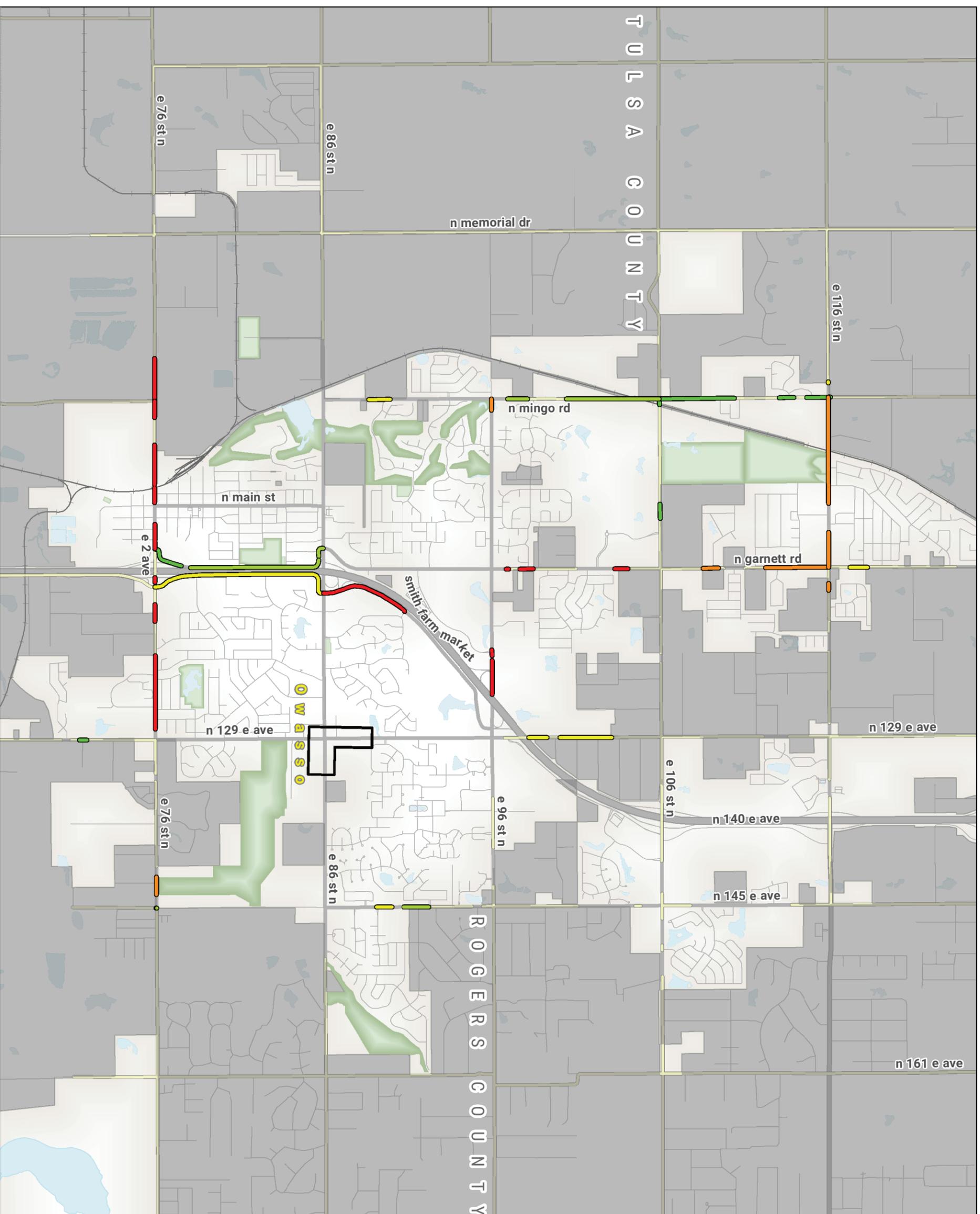
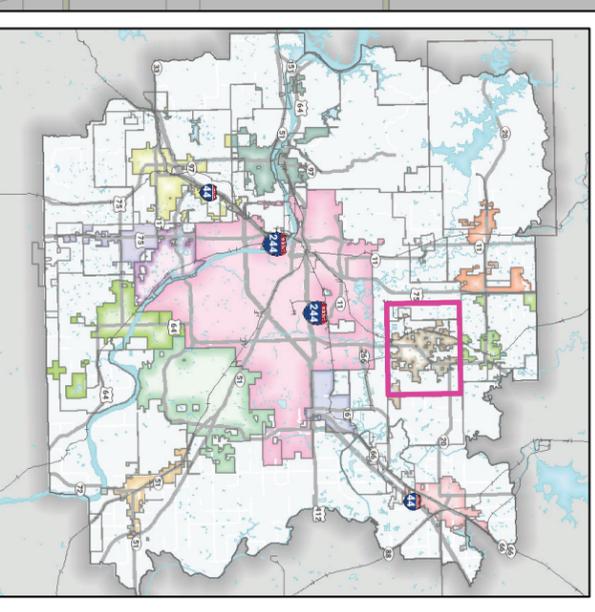
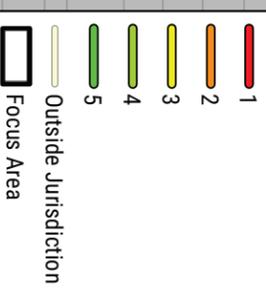
Pedestrian Improvements

8/26/2015

Tulsa Regional Bicycle & Pedestrian Master Plan

OWASSO

Prioritized Sidewalk Gaps by Quintile



Tulsa Regional Bicycle & Pedestrian Master Plan
A PLAN FOR PEOPLE POWERED MOVEMENT

Toole Design Group

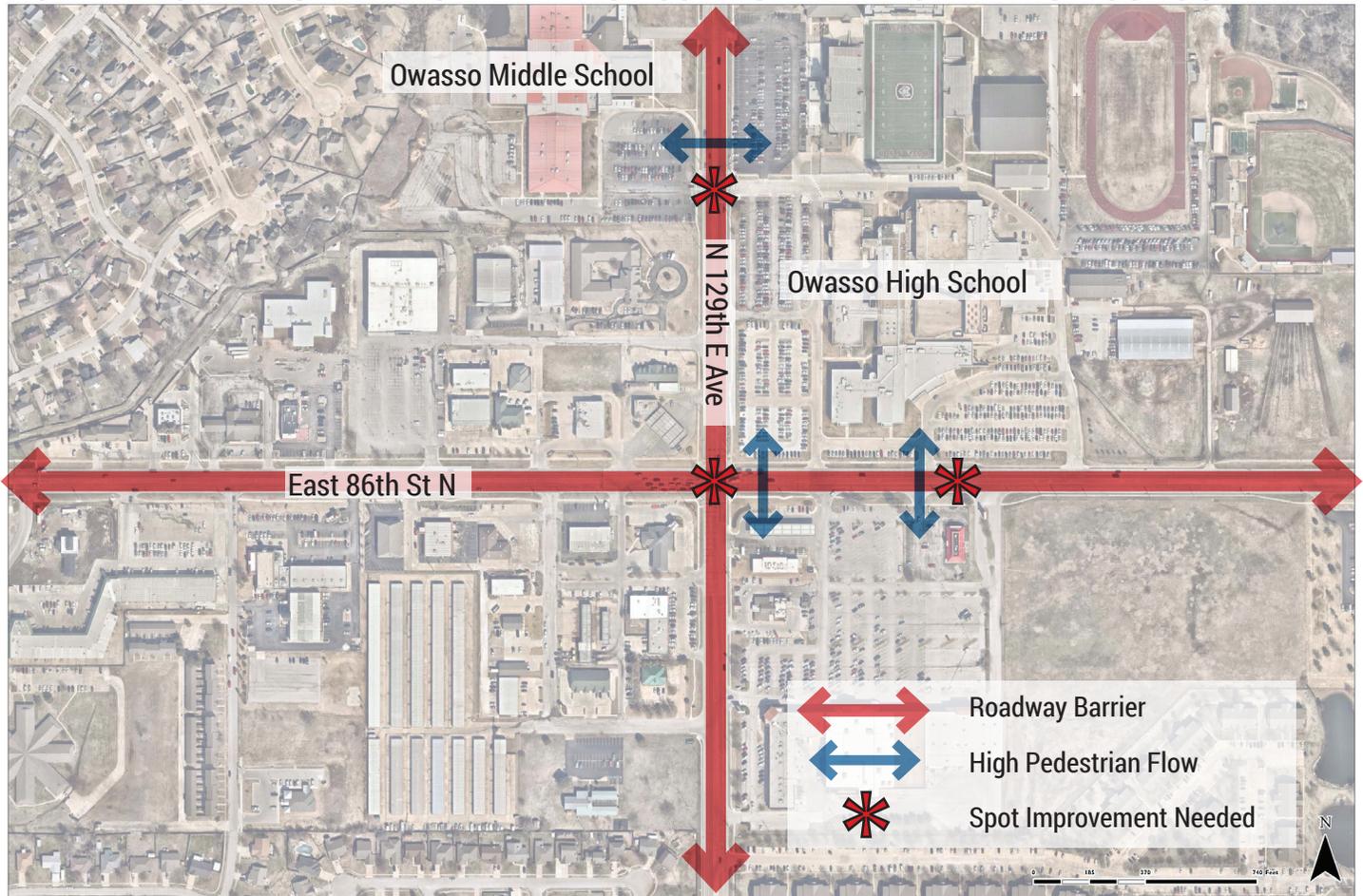
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NORTH 129TH EAST AVENUE AND EAST 86TH STREET NORTH HIGH SCHOOL AREA



Why is this a focus area?

- This area is the intersection of two large arterials, N 129th East Ave and E 86th St North, which have five travel lanes each
- Multiple schools are located in the area:
 - Owasso High School and Mid-High School are across 129th East Ave from each other
 - Sixth Grade Center is on 129th East Ave south of 86th Street
- Suburban strip development and gas stations are the main adjacent retail land uses
- Single family residential developments are within a five-minute walk of the area
- High volume of student traffic and parent pick-up and drop-off traffic
- Crossing guards are currently needed at all of the school entrances to control traffic and pedestrian conflicts
- Traffic speeds are relatively normal to slow during school arrival and dismissal because of high traffic volume during those times, but the other times of day have some speeding and compliance issues



Typical crosswalk during school dismissal



Typical vehicle congestion during school dismissal

NORTH 129TH EAST AVENUE AND EAST 86TH STREET NORTH HIGH SCHOOL AREA

Proposed solutions

- Construct raised crosswalks or raise the entire intersection at the High School and Mid-High School entrances off of N 129th East Ave to ensure drivers know they are entering a high-volume pedestrian area
- Widen crosswalks and make them high visibility markings at the intersection of N 129th East Ave and E 86th Street N
- Install a mid-block crossing with HAWK signal and raised median along E 86th St N to allow easier crossing for high school students to and from the shopping center on the south side of 86th Street



High-visibility crosswalk marking



Raised Mid-block Crosswalk



Raised Intersection

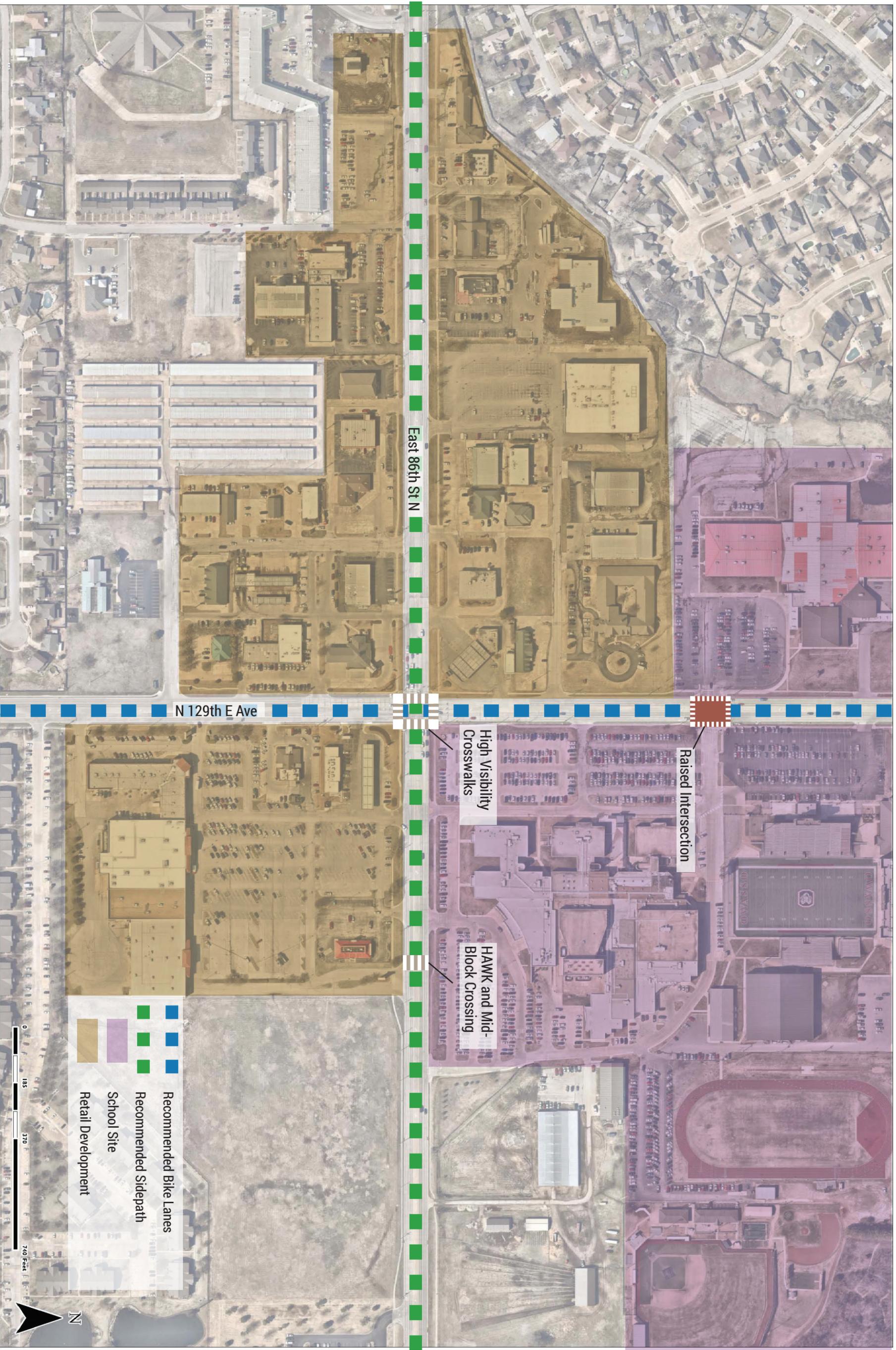


HAWK Signal



Mid-Block Crossing

For design specifics on these recommended facilities, see Appendix A: Design Guidelines.



Bicycle Network Recommendations

The bicycle facility recommendations for Owasso were developed through the process described in Chapter 2 including a number of conversations and reviews with City staff in the Planning department. These recommendations connect neighborhoods, commercial centers, schools and other major destinations with a range of facility types appropriate to the given street type. For instance, bike lanes are recommended on Main Street from 86th Street to Broadway. The four-lane to three-lane road diet needed to implement this facility will calm traffic as the City has done south of Broadway, and provide dedicated bicycle space on the roadway.

The set of recommendations for Owasso was prioritized according to the process described in Chapter 4 incorporating measurable variables

that define the safety and connectivity of projects, among others. The results of this process are included in Appendix C. The prioritization process is only a tool in determining how a city should go about implementing projects. Other factors such as grant opportunities or development may enable a city to develop the network in an order not consistent with the priorities. The list in the appendix should be used as a guide and not as an implementation schedule. While this prioritization listed represents a quantitative assessment of the projects, the City should also consult this Plan whenever street reconstruction or resurfacing projects occur to capitalize on programmed project investments.

OWASSO	TOTAL MILEAGE	COST PER MILE	TOTAL COST
Signed Route	9.07	\$ 800 to 18,500	\$108,000
Shared Lane Markings	3.00	\$33,400	\$100,000
Bike Lane	2.75	\$71,600	\$197,000
Sidepath	18.45	\$719,000	\$13,268,000
Trail	44.33	\$888,100	\$39,374,000
Total	77.61		\$53,047,000

Final Network 8/31/2015

Tulsa Regional Bicycle & Pedestrian Master Plan

OWASSO

- | | |
|------------------------|----------------------------|
| Recommendations | Existing Facilities |
| Trail | Trail |
| Sidepath | |
| Bike Lane | |
| Shared Lane Marking | |
| Signed Route | |

