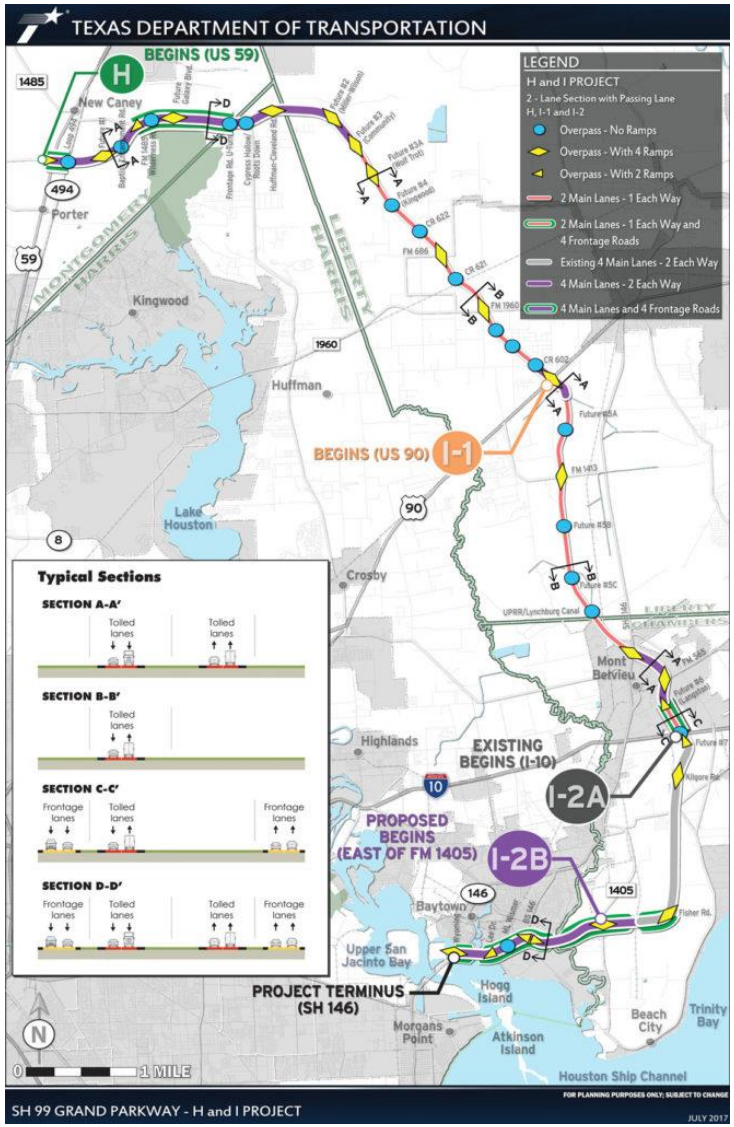
INFRASTRUCTURE ON MAIN STREET

H-GAC BRINGING BACK MAIN STREET

THE GOODMAN CORPORATION

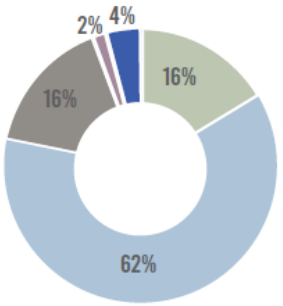
January 28, 2020

GROWTH TRENDS

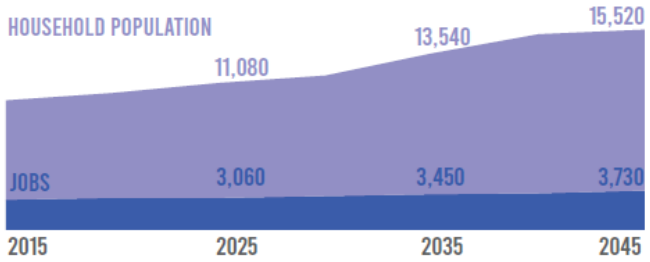


DAYTON POPULATION BY RACE & ETHNICITY

TOTAL POPULATION
7,615

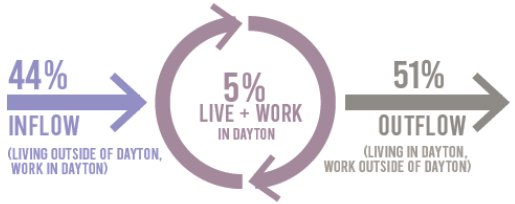


DAYTON CITY-WIDE PROJECTIONS

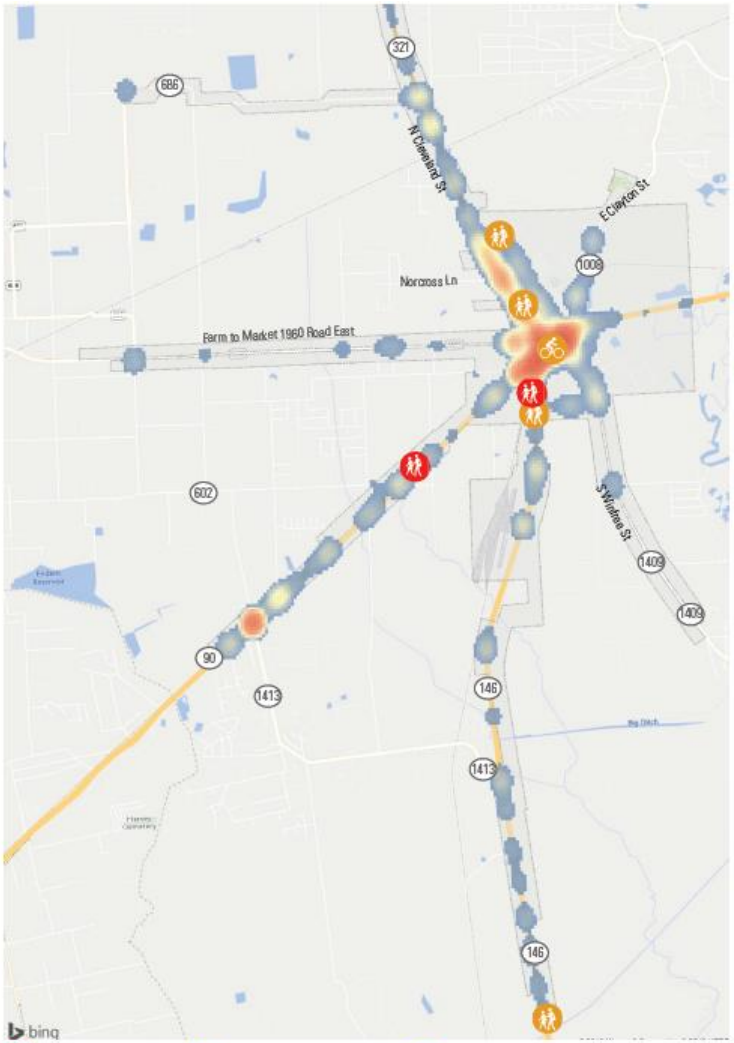


AVERAGE COMMUTE TIME (ONE-WAY)

JOBS INFLOW-OUTFLOW FOR CITY OF DAYTON



EXISTING SYSTEMS



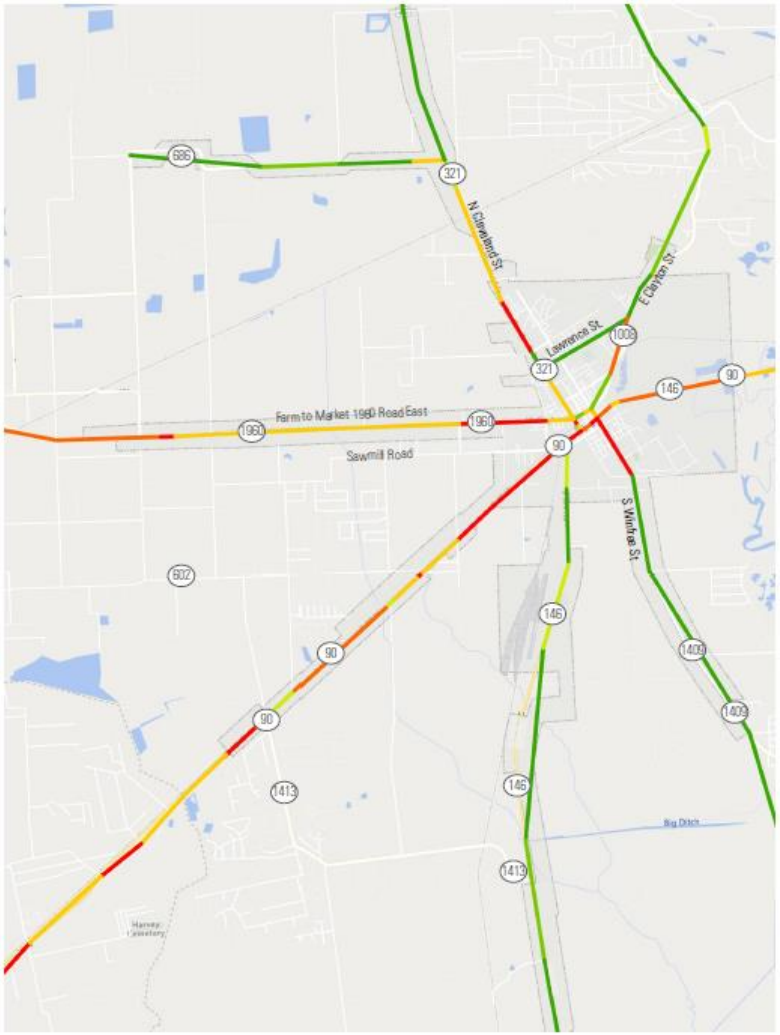
Fatal pedestrian crash Severe pedestrian crash Severe bike crash

Map 7 : Crash Heat Map (all crashes)

Crash Frequency
Low — High

SAFETY

The map above shows a heatmap of all crashes in the city of Dayton between 2014-2018. There were 2 fatal pedestrian crashes, 4 severe pedestrian crashes and 1 severe bike crash between 2014-2018 per the TxDOT Crash Records Information System (CRIS) database.



Map 8: Congestion Map (PM peak period)

PROJECTS TO FIT THE NEED

1A NORTH SOUTH SIDEWALK CONNECTION

CONSTRUCTION COST
$403,000

SOFT COSTS
$222,000

TOTAL COST
$625,000

TOTAL BENEFITS : $837,000
BCA RATIO : 1.34

PROJECT PURPOSE

This project will enhance pedestrian connectivity in the City of Dayton through filling in gaps in the sidewalk network. This project will provide alternative transportation that is safe, accessible and healthy for school children traveling to and from the Kimmie M. Brown Elementary School and Dayton Community Center. A dedicated, contiguous sidewalk would provide a safe path for pedestrians.

PROJECT NEED

Dayton lacks north-south connectivity for pedestrians south of US90, and existing sidewalks have gaps that do not allow for a contiguous path to and from the downtown area to the Kimmie M. Brown Elementary School. Currently, elementary school students are not allowed to walk to school for safety reasons. Cars travel at high speeds along Winfree Street, resulting in unsafe conditions for any pedestrians who currently walk along the roadway.

PROJECT LOCATION & SCOPE

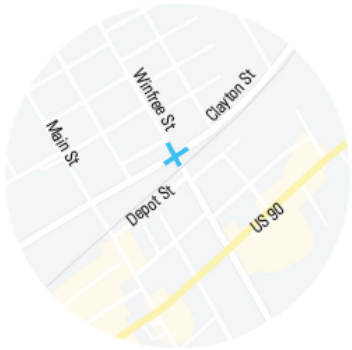
The project will add a 6-foot concrete sidewalk along various segments including the west side of S. Cleveland Street between W. Houston Street to Lovers Lane; the north side of Lovers Lane between S. Cleveland Street and FM1409 and the west side of FM1409 between Lovers Lane and Kimmie Brown Elementary School. The total project length is approximately 0.64 of a mile. ADA ramps and crosswalks will be added or restriped as part of this project.

PROJECT CONNECTIVITY

- 2 churches
- Along the Brazos Transit District route (Liberty & Dayton Community Circular)
- Jones Public Library
- 2 schools (Kimmie M. Brown Elementary and Nottingham Middle School)
- Dayton Community Center

PROJECTS TO FIT THE NEED

④ FM1409/FM1008 INTERSECTION IMPROVEMENTS



CONSTRUCTION COST
$472,000

SOFT COSTS
$162,000

TOTAL COST
$634,000

TOTAL BENEFITS : $24,081,000
BCA RATIO : 38

PROJECT PURPOSE

The project will improve the intersection of FM1409/FM1008 for a safer, less congested connection within Dayton's transportation network.

PROJECT NEED

Improvements at this intersection are needed to alleviate congestion and improve safety. The intersection is bisected by the Union Pacific Railroad track at the southern portion of the intersection. Existing conditions show about 37 hours of delay per day, as well as 20 crashes over the last 5 years.

PROJECT LOCATION & SCOPE

This project will improve the intersection of FM1409 and FM1008, which is currently a stop-controlled intersection.

The proposed project will add a traffic signal, a 150-foot left turn lane on the westbound approach of the intersection and replace an existing sign.

Twelve-hour counts were taken at the intersection in January 2019, which found that there were a total of 8,436 cars over the 12 hour period that went through the intersection. To study what improvements are needed at the intersection, a signal warrant analysis and operational analysis were conducted. The signal warrant analysis found that a signal is warranted at this intersection, as 2 of the 9 warrants are met. The AM and PM peak hour turning movement counts were used to determine the need for protected left-turn operations on the intersection approaches. The analysis showed that some protection is needed on the westbound approach of the intersection. A 150-foot left turn lane at the westbound approach of the intersection would be sufficient for vehicle storage, based on the result of the Synchro and SimTraffic analyses. The operation analysis found that the total vehicle delay will decrease from 37.31 hours in the existing conditions to 35.53 hours, if the signal is implemented in 2019.

PROJECTS TO FIT THE NEED

PROJECTS TO FIT THE NEED

7A WACO STREET RECONSTRUCTION & EXTENSION (NORTH)

CONSTRUCTION COST
$7,601,000

SOFT COSTS
$2,190,000

TOTAL COST
$9,791,000

TOTAL BENEFITS : $20,164,000
BCA RATIO : 2.06

PROJECT PURPOSE

The project will enhance north-south connectivity in the City of Dayton for automobile users and non-motorized users of the transportation network. Extending Waco Street from its current terminus would provide an additional route for automobiles and relieve congestion that exists on SH321.

PROJECT NEED

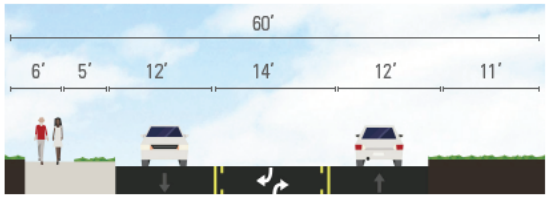
This project is needed for connectivity, access and congestion improvements in the City of Dayton. The City lacks connectivity from north-south; SH321 is currently the only contiguous north-south route from US90 to the northern part of the city limits. Furthermore, there is no safe north-south pedestrian route at this time for students to walk to and from Dayton High School.

PROJECT LOCATION & SCOPE

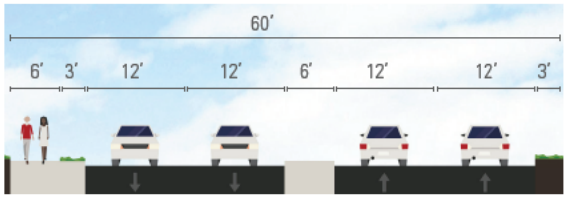
The project limits are from SH321 to FM1960. This proposed project will construct a new roadway from the existing terminus to SH321 and reconstruct the existing Waco Street roadway north of FM1960. The project will construct a 3-lane roadway with a center-turn lane, sidewalk on the west side of the road, and drainage improvements from FM1960 to Norcross Lane. The section will expand to a 4-lane roadway from Norcross Lane to SH321 to accommodate school and bus traffic. Access to the Dayton High School will be reconfigured, through providing an access and egress entrance along the new Waco Street segment. The project scope will include reconstructed intersections with new traffic signals at SH321 and FM1960. The project includes the acquisition of 4 parcels near FM1960 to straighten the intersection, which is currently offset.

PROJECT CONNECTIVITY

1 school (Dayton High School)



- Two 12' travel lanes
- One 14' center turn lane
- One 6' sidewalk
- One 5' and one 11' buffer



- One 6' sidewalk
- Two 3' buffers
- Four 12' travel lanes
- One 6' median

PROJECTS TO FIT THE NEED

8 DOWNTOWN PEDESTRIAN IMPROVEMENTS

CONSTRUCTION COST
$320,000

PROJECT PURPOSE

The proposed improvements will increase pedestrian connectivity in Downtown Dayton through providing improved sidewalk connections, rebuilding sidewalks, adding crosswalks, and ADA-compliant ramps. The project will provide east-west connectivity through the downtown area, from SH321 to FM1008 for enhanced walkability.

PROJECT NEED

The downtown area of Dayton lacks ADA-compliant infrastructure. There are no contiguous sidewalks that allow for east-to-west pedestrian access. Crosswalks and ramps are lacking for pedestrians to cross safely across the streets. The lack of ADA-compliant infrastructure and the deteriorating conditions of existing infrastructure pose a safety hazard for residents, business owners and visitors to the downtown area.

PROJECT LOCATION & SCOPE

All improvements are located in the area bounded by SH321, Depot Street, Winfree Street and Sterling Street.

This project will include pedestrian crosswalks at 7 locations and 20 new and/or rebuilt ADA ramps. The project scope also includes improvements to driveways and traditions, which total about 270 linear feet.

Church Street, between Cook Street and US90, was closed to traffic beginning in September 2019. To better demarcate this closure and improve pedestrian connectivity, this project will include a raised sidewalk at 2 handicapped parking spaces with appropriate pavement markings and servicing ADA ramps. The ADA ramps will be located adjacent to the new sidewalks between the intersection of Cook and Church Street.

PROJECTS TO FIT THE NEED

LOCATION OF DOWNTOWN PEDESTRIAN IMPROVEMENTS

EXISTING CONDITIONS

The photos show the existing conditions in the City of Dayton's downtown area. The images shown below are on Bryan Street and Cook Street. The photos show the lack of pedestrian infrastructure, the poor condition of existing sidewalks, and the lack of ADA-compliant ramps.






FUNDING & IMPLEMENTATION

- 2018 H-GAC Call for Projects
  - Waco St. RTP Designation

- 2019 TxDOT TA/SRTS Program Call
  - Sidewalks pending award

- 2020 Consolidated Rail Infrastructure Safety Initiatives
  - Pending Award

CRISI GRANT APPLICATION

In October 2019, the City of Dayton applied for a CRISI grant through the Federal Railroad Administration. The grant request was for the preliminary engineering and environmental work to study improvements at 4 at-grade railroad intersections in the City of Dayton, including the intersection at FM1008/FM1409 (Project 4) and the intersection of US90/Waco, which is at the southern end of Project 7B.

- 2019 TxAG Downtown Revitalization
  - $350,000 Awarded

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