

CITY COUNCIL REPORT
PUBLIC

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TO: Mayor, Vice-Mayor and Councilmembers

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CC: Josh Copley, Barbara Goodrich, Shane Dille & Leadership

SUBJECT: Fourth Street Corridor Pedestrian Crash Update – Informational Report

Executive Summary

City Council asked staff for information about pedestrian safety along Fourth Street north of Route 66. This street segment was ranked high in a survey to prioritize sidewalk improvements. The City has designed sidewalk, lighting, and landscaping improvements for the east side of Fourth Street, where sidewalk is missing, and pedestrians currently may walk in the street or in private parking lots. However, adjacent property owners and/or tenants have opposed City efforts to acquire land needed for the \$1.07 million project.

This report also provides an update on pedestrian involved crashes along Fourth Street between Second Avenue and Cedar Avenue following pedestrian crossing improvements that were installed in September 2014. A review of pedestrian involved crashes in this section of Fourth Street revealed three such crashes in this corridor since the crosswalk improvements compared with six during a similar time period before the improvements. There are no additional recommendations at this time.

Pedestrian Crash Data

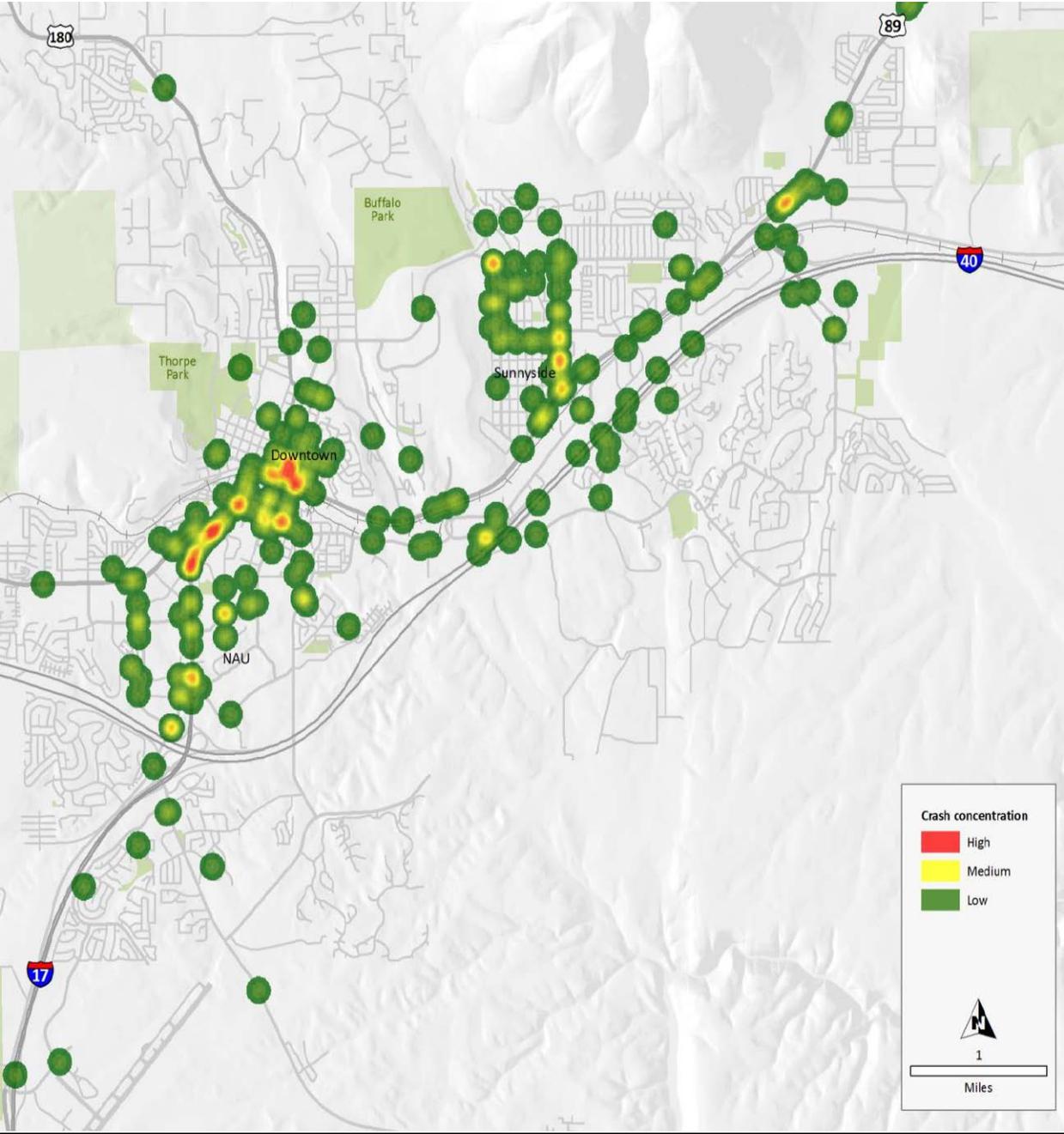
A “pedestrian crash” is an incident in the public right-of-way (street, shoulder, bike lane, or sidewalk) that:

- Involves one or more pedestrians, and
- Involves one or more motor vehicles, at least one of which is moving, and
- Results in injury or death of any person, damage to property exceeding \$1,000, or issuance of a citation by a law enforcement officer to one or more of the parties involved.

According to information provided in the [City of Flagstaff Pedestrian Bicycle FUTS Master Plans Draft Working paper 4, Pedestrian and Bicycle Crash Data](#), and by the Flagstaff Police Department:

- Fourth Street from Route 66 to Seventh Avenue has the fourth highest number of pedestrian crashes among all street segments in Flagstaff.

- 15 pedestrian crashes occurred along Fourth Street between Route 66 and Seventh Avenue from 2005 through 2014, two of which were fatal. Six involved serious injuries.
- The Flagstaff Police Department reported that from 2014 to date, there have been six pedestrian crashes along Fourth Street from Route 66 to Seventh Avenue.
- Only three other street segments in Flagstaff had more pedestrian crashes than Fourth Street:
 1. Milton Road – University Dr. to Route 66 (29 pedestrian crashes)
 2. Butler Avenue – Route 66 to San Francisco St. (16 pedestrian crashes)
 3. Milton Road – Route 66 to Butler Ave. (16 pedestrian crashes)



Pedestrian Crash Concentration 2005 – 2014

Many pedestrian crashes occur when a pedestrian tries to cross a street at a location other than the crosswalk/traffic signal.

Walking and Biking Survey

The [City of Flagstaff Pedestrian Bicycle FUTS Master Plans, Draft Working Paper 5](#), dated February 2016 provides the following:

- A Walking and Biking Survey was conducted in the summer of 2014, and 458 residents responded.
- Fourth Street ranked third on the list of least comfortable/most difficult areas to walk/bike.
- Milton Road and Route 66 Ranked first and second as the least comfortable/most difficult areas to walk/bike. Refer to the Table 7 from the working paper copied below.

Table 7 Least comfortable/most difficult places to walk, all locations

	Number	Percent
Milton Rd	76	11.3
Route 66	43	6.4
Fourth St	42	6.2
Citywide	35	5.2
Butler Ave	23	3.4
San Francisco St	17	2.5
Sunnyside	16	2.4
Milton/Butler	15	2.2
Fort Valley/Forest	14	2.1
Fort Valley Rd	13	1.9
Downtown	12	1.8
Karen Cooper Trail	11	1.6
Other	356	52.9
Total	673	100.0

- The survey asked four basic questions:
 1. Where is it difficult to walk (bike) in Flagstaff, and why?
 2. Where is it good to walk (bike) in Flagstaff, and why?
 3. What do you like about walking (biking) in Flagstaff?
 4. What could be done to improve walking (biking) in Flagstaff?
- According to the respondents, Fourth Street is difficult or uncomfortable to walk/bike and is a difficult street to cross because of:
 1. Missing sidewalks or sidewalk issues.
 2. Traffic.

Missing Sidewalks Inventory and Prioritization

The following information is from the [City of Flagstaff Active Transportation Master Plan Draft Working Paper 7, Missing Sidewalk Inventory and Prioritization](#), dated October 2016.

- Missing sidewalks throughout Flagstaff were given an initial prioritization score for future projects consideration, based on the following criteria:
 1. Pedestrian attractors and generators
 - Proximity to schools
 - Parks
 - Commercial areas
 - Employment centers
 - Transit stops
 - Residential density
 - Grade-separated crossings
 - Institutions
 - NAU campus
 2. Social factors for walking:
 - Elderly populations
 - Human service facilities
 - Persons with disabilities
 - Low-income neighborhoods
 - Affordable housing
 - Children under 18
 - Young adults between 18 and 24
 - Households without access to a vehicle
 3. Pedestrian environment score:
 - Presence of sidewalks
 - Buffers from the street
 - Traffic speed and volume
 - Number of traffic lanes
 - Presence of a median
 - Functional class
- Fourth Street between Route 66 and Seventh Avenue ranked third highest project out of 166 total missing sidewalk projects.
- Fourth Street from Seventh Avenue to Cedar Avenue ranked fifth highest project out of 166 total missing sidewalk projects.

Update on Crosswalk Improvements at Third Avenue and at Dortha Avenue

Pedestrian crossing improvements consisting of marked crosswalks, warning signs, median pedestrian refuge areas outlined with yellow traffic delineators, and temporary sidewalk ramps were installed on Fourth Street at Third Avenue and at Dortha Avenue in September 2014 after a study of pedestrian safety issues in this corridor that was conducted in response to residents' concerns. A 2014 study done shortly after the crosswalk improvements were installed revealed that while overall pedestrian crossings in the corridor were only one percent different than before the improvements, crossings at the improved locations increased ten percent. At that time installation of permanent crossing improvements consisting of the following was recommended:

- Pedestrian refuges consisting of curbed median islands
- Pedestrian Rapid Flashing Beacons with associated warning signs and crosswalk markings
- Permanent concrete sidewalk ramps
- Relocation of the driveway on the east side of Fourth Street at Third Avenue to line up directly with Third Avenue

Phase One of the permanent improvements was completed in December 2015 and included:

- Curbed pedestrian refuge median islands.
- Rapid Flashing Beacons and associated signs and markings.
- Permanent sidewalk ramps on the west side of Fourth Street.

A photo of the crossing at Third Avenue with Phase One improvements is included below.

The remaining improvements were delayed because additional right-of-way needed to be acquired along the east side of Fourth Street. Phase Two includes:

- Overhead indications for the Rapid Flashing Beacons (except for southbound at 3rd Avenue, which was installed with the first phase).
- Permanent sidewalk ramps on the east side of Fourth Street.
- Relocation of the driveway on the east side of Fourth Street to align with Third Avenue.
- Shifting the east half of the Third Avenue crosswalk slightly south.

Right-of-way acquisition was recently completed, and the Phase Two work is expected to be completed in four to five months. In the meantime, the temporary asphalt ramps remain in place.

An update of pedestrian involved crash history along Fourth Street between Second Avenue and Cedar (not including the signalized intersection of Cedar) revealed three such crashes in this corridor since the crosswalk improvements compared with six during a similar time period before the improvements. Dates and locations for these crashes are listed in the table below.

MID-FEB 2012 TO MID-SEPT 2014
(31 months **before** crossing improvements)

Date	Cross Street	Injury
10-12-2012	6 th Avenue	No
11-9-2012	6 th Avenue	Possible
9-10-2013	6 th Avenue	No
11-22-2013	7 th Avenue*	Yes
1-6-2014	4 th Avenue	No
5-19-2014	3 rd Avenue	Possible

**Pedestrian was northbound in crosswalk at traffic signal*

MID-SEPT 2014 TO MID-APRIL 2017
(31 months **after** crossing improvements)

Date	Cross Street	Injury
11-30-2014	4 th Avenue	Yes
4-29-2015	3 rd Avenue	Fatal
12-5-2016	3 rd Avenue	Yes



Fourth Street & Third Avenue Phase One Crosswalk Improvements

Staff Recommendation:

This is an informational report only. There are no additional staff recommendations at this time.