A PEDESTRIAN AND BICYCLE

SAFETY PLAN

FOR

THE OLD NORTH END

IN COLORADO SPRINGS, COLORADO

This Plan Emphasizes

Colorado College Pedestrian and Bicycle Safety
Colorado Springs Fine Arts Center Pedestrian and Bicycle Safety
Corpus Christi Elementary School Pedestrian and Bicycle Safety
First Lutheran Church Pedestrian and Bicycle Safety
Numismatic Museum Pedestrian and Bicycle Safety
Penrose Hospital Pedestrian Bicycle Safety
Steele Elementary School Pedestrian and Bicycle Safety

A PEDESTRIAN AND BICYCLE SAFETY PLAN FOR THE OLD NORTH END:

Concurrently safety-size all four arterial streets running north-south through the Old North End by reducing them from two-lanes-in-each-direction to one-lane-in-each-direction:

1. **N. Cascade Avenue from Willamette Avenue, through the Colorado College campus and the Old North End, to Jackson Street.**
2. **N. Nevada Avenue from Uintah Street, through the Old North End, to the Rock Island railroad bridge (Lilac Street).**
3. **N. Weber Street from Willamette Avenue, along the border of the Colorado College campus and through the Old North End, to Lilac Street.**
4. **N. Wahsatch Avenue from Willamette Avenue, in the vicinity of the Colorado College campus and through the Old North End, to E. Jackson Street.**

The safety-sizing of these four arterial streets should be accomplished only through the repainting of lane striping on the streets. No changes to curbs or medians should be attempted. No on-street parking spaces should be removed near major institutions.

Safety-size the two arterial streets running east-west through the Old North End by reducing them from two-lanes-in-each-direction to one-lane-in-each-direction:

1. **Fontanero Street from N. Cascade Avenue to N. El Paso Street.**
2. **E. Uintah Street from east of N. Wahsatch Avenue to the Shooks Run bridge, which is where the already-existing one-lane-in-each-direction section of E. Uintah Street begins.**

COLORADO SPRINGS GAZETTE, January 10, 2016, p. A18

Fix dangerous crossings before someone is killed

As pointed out in this space for much of the past decade, Colorado Springs tolerates an obvious, growing and needless danger. Let us hope we don't need more tragic events to wake the collective mindset and motivate action.

Our community is blessed with Colorado College, a respected and demanding liberal arts college in the center of town. The school has consistently produced local, state and national leadership in government and business.

Running through the middle of this historic campus are two increasingly busy thoroughfares, Cascade and Nevada avenues. Each mixes heavy traffic and constant pedestrian crossings by concentrations of students, as they traverse segments of the campus. Anyone who drives through Colorado College can see the danger. If a car stops in the right lane, drivers in the left lane cannot see pedestrians entering traffic.

Monday, the expected occurred. A CC student was hit by a car between Cache La Poudre and Uintah streets and dragged beneath the vehicle for 40 feet. She was badly injured and could have been killed. She was the second student hit this year — the sixth in the past two years. Odds have played out as one might expect, and it has only been luck that none have been killed.

Nothing nefarious led to this latest mishap. The driver said she did not see the pedestrian.

"The city is working with Colorado College on design possibilities and will conduct a public process at the right time," city spokeswoman Kim Melchor said.

Melchor said the public can "soon" expect to hear more details about a project that could break ground by the end of the year.

That is great news and a testament to the stability and functionality of City Hall leadership, in the mayor's office and on the City Council.

Resolving this is not optional. It should not be difficult or controversial but may be expensive. Colorado College and the lives of students are worth a serious investment.

A far busier thoroughfare, Broadway, divides the University of Colorado at Boulder from University Hill — an area of university-related shops, restaurants, bars and housing. Students walk through an underpass that eliminates pedestrian-pedestrian conflicts. The safety-minded engineering has undoubtedly saved lives, making the community and university more attractive to visitors, residents and prospective students.

This is a problem our community can come together to resolve. We cannot afford the death of one or more students as the cost of ignoring it.

THE GAZETTE

COLORADO SPRINGS GAZETTE

March 3, 2016

SPEAKER SAYS DOWNTOWN COLORADO SPRINGS COULD BE MORE BIKE, PEDESTRIAN FRIENDLY

By Maria St. Louis Sanchez

If downtown Colorado Springs wants residents to ditch their cars and walk, then their walks have to be as good as their drives.

That was the message Wednesday night from Jeff Speck, a city planner and urban designer who advocates for smart grown and sustainable design. He is author of the book "Walkable City: How Downtown Can Save America One Step at a Time."

He spoke Wednesday to a crowd of about 100 people at Colorado College as part of the City Center Series, a series of three talks aimed to inspire people about what makes downtowns great. Speck's talk Wednesday was titled "Towards a More Walkable Colorado Springs."

For downtown Colorado Springs to be more walkable, it will have to have four simultaneous components, Speck said. The walks have to be useful, safe, comfortable and interesting. The downtown has potential, he said, but pointed out instances in all of the categories where it could improve.

"You could be doing better, but you aren't doing that badly," he said. "Your bones are good."

For instance, he said, drivers tend to slow down and crash less when they have narrower lanes. In many cases, downtown Colorado Springs streets are far wider than they have to be. Drivers on Platte Avenue, he noted, drive at almost freeway speeds and residents there are afraid to park along the street for fear of being hit. If the lanes downtown were narrower, there would be more room for parking and bike lanes, he said.

For example, he suggested converting Bijou and Kiowa streets to two-way streets east of Cascade Avenue and making parallel parking on one side of the streets to protect new bike lanes. That way the cars would drive slower, bicyclists would be protected and there would still be parking.

To make the area safer for walkers and drivers alike, he said that fewer traffic lanes, not more, were necessary. In many cases, he said, downtown streets are built for far more capacity than they need.

Speck criticized a potential plan to add turn lanes at the intersection of Platte Avenue and Tejon Street to help cut down on crashes there. In fact, he said, the opposite will happen. With more turn lanes will come more traffic and with more traffic will come more crashes.

"Expansion of capacity in the name of safety doesn't work," he said. "I'd ask you to reject this proposal."

He also called on the city to invest as much as it could in creating an infrastructure of safe bike lanes. He noted that in Portland, Oregon, traffic congestion during peak hours went down after the city invested heavily into building safe bike lanes.

"The main lesson in biking is that it's a function of infrastructure," he said. "Places that invest in bicycling create the biking population."

AUTOMOBILE-PEDESTRIAN CONFLICT AND AUTOMOBILE-BICYCLE CONFLICT AT COLORADO COLLEGE AND STEELE ELEMENTARY SCHOOL:

In early January of 2016, a woman student at Colorado College was struck by an automobile while crossing N. Cascade Avenue where it runs through the Colorado College campus. The automobile ran over her and dragged her along the pavement for a considerable distance. She was stuck so tightly under the automobile that emergency responders had to jack the automobile up and stabilize it with bricks in order for her to be removed, given First Aid, and sent to the hospital. Her injuries included a broken collar bone, a scraped liver, and multiple cuts and scratches. The event was, for both the driver and the pedestrian who was hit and dragged, a horrifying experience.

This pedestrian accident happened in the customary manner on a two-lanes-in-each direction street. One automobile in the first lane stopped for the young woman as she entered the well-marked crosswalk. A second automobile in the second lane did not stop and hit the young woman as she came past the first automobile. The driver of the second vehicle could not see the young woman in the crosswalk because the student was hidden behind the stopped vehicle.

This accident at Colorado College was not an isolated event. In recent years there have been 30 pedestrian-related accidents at crosswalks and intersections adjacent to or within the Colorado College campus. **Ten of those accidents involved walking pedestrians and 20 concerned bicycle and skateboard riders.**[1]

Pedestrian-automobile accidents on two-lanes-in-each-direction streets have been a problem at Steele Elementary School over the years. In 1976 one student, the son of a court judge in Colorado Springs, was hit by an automobile at the corner of E. Del Norte Street and N. Nevada Avenue. He suffered a broken arm

[1] "Colorado College Transportation Plan," Felsburg Holt & Ullevig #12-291-01, September 2013, p. 1. Hereafter "CC Transportation Plan." This plan was the result of a yearlong development process in which the Old North End Neighborhood Board of Directors and Old North End residents had input and actively participated.

and additional minor injuries. As a result of that accident, a traffic signal with walk lights was installed by the City of Colorado Springs at that intersection.

Several years after that, a female student at Steele Elementary School was struck by a car at E. Fontanero Street and N. Nevada Avenue. The intersection had a traffic signal but no walk lights to protect pedestrians. She was dragged along the pavement before the automobile was able to stop. The Steele student suffered deep scrapes and bruises and had endured a terrifying experience for a young child. Shortly thereafter, walk lights were installed at that intersection.

AN OVERSUPPLY OF NORTH-SOUTH ARTERIAL STREETS:

The Old North End is a "drive-through" neighborhood with an oversupply of North-South arterial streets. The eight North-South streets, listed from west to east, are Culebra, Alamo, Wood Avenue, N. Cascade Avenue, N. Tejon Street, N. Nevada Avenue, N. Weber Street, and N. Wahsatch Avenue. Four of those eight streets are arterial streets that pass traffic through the neighborhood. The arterial streets, again listed west to east, are N. Cascade Avenue, N. Nevada Avenue, N. Weber Street, and N. Wahsatch Avenue.

Three of the four arterial streets are adjacent to each other. They are, west to east, N. Nevada Avenue, N. Weber Street, and N. Wahsatch Avenue. The fourth arterial street, N. Cascade Avenue, is only two blocks west of N. Nevada Avenue with a residential street, N. Tejon Street, intervening.

A residential neighborhood with four of its eight North-South streets serving as arterial streets carrying through traffic has a definite interest in calming traffic, decreasing street noise, and increasing pedestrian safety at every opportunity.

TRAFFIC VOLUMES DECREASING ON N. CASCADE AVENUE AND N. NEVADA AVENUE THROUGH THE OLD NORTH END:

Rather than increasing or holding steady, traffic volumes on N. Cascade Avenue and N. Nevada Avenue have been decreasing in recent years. According to traffic counts provided by the City of Colorado Springs, Average Daily Traffic on Cascade Avenue north of Uintah Street dropped from 13,000 vehicles in 2005 to

10,000 vehicles in 2012. That was a decrease in daily traffic of 3,000 vehicles or about 23 percent.

A decrease of 14 percent occurred on N. Nevada Avenue during the same time period. Average Daily Traffic on N. Nevada was 18,000 vehicles in 2005 and 15,500 vehicles in 2012, a decrease of 2,500 vehicles per day.

These significant declines in the numbers of vehicles using N. Cascade Avenue and N. Nevada Avenue through the Old North End are attributed to recent improvements on Interstate Highway 25 (I-25) during the study period (2005 to 2012). Improved travel times on I-25, which parallels N. Cascade and N. Nevada avenues, attracted drivers off of N. Cascade and N. Nevada avenues and on to the Interstate.[2]

The recent steady decline in vehicle traffic on Cascade and Nevada avenues through the Old North End offers the opportunity for major traffic calming and pedestrian safety efforts on those two streets.

REDUCING THE NUMBER OF TRAFFIC LANES IN THE OLD NORTH END:

There are four major north-south arterial streets running through the Old North End. They are, from west to east, N. Cascade Avenue, N. Nevada Avenue, N. Weber Street, and N. Wahsatch Avenue. Each of those arterial streets is comprised of two northbound and two southbound lanes. There thus are a total of 16 traffic lanes (four per street on four streets) available to carry vehicle traffic through the Old North End neighborhood.

At the present time, these 16 lanes of traffic are badly underutilized. Altogether they see only about an average of 2,200 to 2,500 vehicles per lane per day. When this is compared to most other busy arterial streets in Colorado Springs, it is very low. Academy Boulevard for instance, handles 7,200 to 9,200 vehicles per lane per day, more than 3.5 times higher than the single lane utilization in the Old North End.[3]

[2] "CC Transportation Plan," p. 9.

[3] "CC Transportation Plan," p. 9-10.

It is quite clear that the vehicle lanes available on the four major arterial streets through the Old North End are operating way below capacity. This presents a unique opportunity to convert arterial streets that are presently two-lanes-in-each direction to one-lane-in-each-direction.

ONE LANE FROM TWO –THE "SAFETY-SIZE" ALTERNATIVE TO PROTECT PEDESTRIANS, BICYCLISTS, AND SCHOOL CHILDREN:

Reducing arterial streets from two lanes to one lane, also known as safety-sizing, provides many benefits to older city neighborhoods. This is particularly true in neighborhoods such as the Old North End which are in national register historic districts, are being actively preserved as desirable residential areas, and are inhabited by large numbers of married couples with children. Those benefits include:

- Lowering vehicle speeds and controlling speeding. A single lane of traffic tends to move at a steady speed, somewhere between the speed limit and five miles-per-hour above the speed limit. Speeders are no longer able to race around law-abiding drivers by using a second lane of traffic.
- Putting a stop to street racing, frequent lane changing, cars passing one another at high speed, and aggressive drivers manipulating to get ahead of all the other traffic. When all drivers must stay in a single lane, there is a tremendous calming effect. There is a reduction in horn honking, fast accelerations, and fast stops with squealing tires. The tension of cars coming up from behind drivers and passing them closely in the second lane is eliminated. Middle-aged and older drivers are particularly rewarded by these improvements.
- Reduced automobile accidents. Studies of the effects of "One Lane from Two" indicated that the number of automobile collisions went down by 10 to 65 percent.[4]
- The space originally used for a second lane of traffic can be used for other purposes, such as left-turn lanes and right-turn lanes at busy

[4] "CC Transportation Plan," p. 14.

intersections. This creates a pleasanter situation for motorists, as turning left or right from special "left turn" and "right turn" lanes is easier and safer than having to turn from a busy lane of moving traffic.

- With the second lane of traffic in each direction removed, there is additional space on the roadway for bicycle lanes.
- Pedestrian safety is enhanced because pedestrians and bicyclists only need to cross two lanes of active traffic (one northbound and one southbound) when crossing an arterial street. With two-lanes in each direction, pedestrians and bicyclists have to cross four lanes of traffic on an arterial street. This benefit most likely would have prevented the January 2016 accident at Colorado College in which a student was hit, dragged along the street pavement, and seriously injured on two-lanes-in-each-direction N. Cascade Avenue.
- Improving the walkability and the pedestrian atmosphere in the neighborhood. The traffic-calming effects of "One Lane from Two" listed above for automobiles and drivers also create an improved feeling of safety on the street for pedestrians. There is less traffic noise (fast accelerations, fast stops, horn honking, etc.) and, with one lane of traffic removed in each direction, the pedestrians are several feet farther away from the quieted vehicle traffic.
- Making the street a calmer place, combined with making it easier and safer for pedestrians and bicyclists to cross at intersections, makes the area more neighborly.

The City of Colorado Springs has long recognized the benefits of safety-sizing arterial streets running through residential neighborhoods. In addition, the City has stressed the importance of traffic loads being equally distributed on the major arterials going through a neighborhood. The Old North End Master Plan, adopted by the City Council in 1991, stated that there should be "equitable distribution of traffic flow among existing arterial streets in the neighborhood, so that no one street is excessively overloaded with non-local traffic."[5]

[5] Old North End Master Plan, City of Colorado Springs, 1991, p. 26, 2.A4, Rec. a.

TRAFFIC VOLUMES COMPARED TO ONE-LANE CAPACITY IN THE OLD NORTH END:

On the four arterial streets that run north-south through the Old North End, peak hour traffic volumes (evening rush hour) at Fontanero Street are considerably lower than the capacity of one lane:

STREET	PEAK HOUR VOLUME	ONE-LANE CAPACITY	EXCESS CAPACITY
N. Cascade Avenue	550	1050	500
N. Nevada Avenue	800	1250	450
N. Weber Street	350	1050	700
N. Wahsatch Avenue	350	1050	700[6]

The major conclusion to be drawn from this data is that the Old North End has ample unused lane capacity to enable changing from two-lanes-in-each-direction to one-lane-in-each-direction on all four north-south streets, i.e., N. Cascade, N. Nevada, N. Weber, and N. Wahsatch. This project should go forward as a unit with all four streets being safety-sized at the same time.

[6] "CC Transportation Plan," p. 15.

TRAFFIC VOLUMES COMPARED TO ONE-LANE CAPACITY AT COLORADO COLLEGE:

Peak hour traffic volumes (evening rush hour) are somewhat higher at Uintah Street on the northern boundary of Colorado College, but the volumes are still within the capacity of one lane of traffic. The one exception is N. Nevada Avenue at E. Uintah Street, where the traffic volume is slightly above the one-lane capacity:

STREET	PEAK HOUR VOLUME	ONE-LANE CAPACITY	EXCESS CAPACITY
N. Cascade Avenue	550	700	150
N. Nevada Avenue	900	890	-10
N. Weber Street	400	650	250
N. Wahsatch Avenue	550	650	100[7]

Although the situation is not as fortuitous as in the Old North End, there is sufficient one-lane capacity at Colorado College to merit safety-sizing three of the four north-south streets by dropping them from two-lanes-in-each-direction to one-lane-in-each-direction. N. Nevada Avenue at Colorado College (from E. Cache La Poudre Street to E. Uintah Street) should remain two-lanes-in-each-direction as it is slightly over capacity. Three of the arterial streets passing through or near Colorado College (N. Cascade, N. Weber, and N. Wahsatch) should be dropped to one-lane-in-each-direction.

[7] "CC Transportation Plan," p. 15.

LEVELS OF SERVICE (LOS) ON ARTERIAL STREETS IN THE OLD NORTH END ARE ACCEPTABLE OR HIGHER:

Another argument for safety-sizing arterial streets through the Old North End is that these streets, as corridor routes, already provide acceptable Levels of Service (LOS). Grades rank from A (best) to F (worst). Grades of A through D are considered acceptable by the City of Colorado Springs. **Where low grades occur, they are mainly the result of traffic signal timing rather than inadequate lane capacity:**

CORRIDOR-WIDE ARTERIAL LEVELS OF SERVICE (LOS)

N. Cascade Avenue, A.M. Southbound, B
N. Cascade Avenue, A.M. Northbound, B
N. Cascade Avenue, P.M. Southbound, B
N. Cascade Avenue, P.M. Northbound, B

N. Nevada Avenue, A.M. Southbound, B
N. Nevada Avenue, A.M. Northbound, B
N. Nevada Avenue, P.M. Southbound, B
N. Nevada Avenue, P.M. Northbound, B

N. Weber Street. A.M. Southbound, B
N. Weber Street. A.M. Northbound, B
N. Weber Street. P.M. Southbound, B
N. Weber Street. P.M. Northbound, B

N. Wahsatch Avenue, A.M. Southbound, B
N. Wahsatch Avenue, A.M. Northbound, C
N. Wahsatch Avenue, P.M. Southbound, B
N. Wahsatch Avenue, P.M. Northbound, C

Fontanero Street, A.M., Eastbound, C
Fontanero Street, A.M., Westbound, D

Fontanero Street, P.M., Eastbound, D
Fontanero Street, P.M., Westbound, D[8]

[8] "CC Transportation Plan," p.11.

EFFECTS OF ONE-LANE TRAFFIC DURING NORTH NEVADA AVENUE RAILROAD BRIDGE REPAIRS:

In 2013 the City of Colorado Springs embarked on a major rebuilding of the N. Nevada Avenue bridge over the railroad tracks that formerly belonged to the Rock Island railroad. While the northbound lanes of the bridge were being rebuilt, northbound automobile traffic was cut down to one lane and diverted over to the southbound bridge. In order to make room for this diverted one lane of northbound traffic, southbound traffic across the bridge was reduced to one lane. Northbound cars used the second lane of the southbound bridge to cross the bridge, diverted back to the northbound lanes, and then continued their vehicle trip northward.

This process was reversed when the southbound lanes of the bridge were rebuilt.

For the duration of the bridge repairs, N. Nevada Avenue became a two-lane rather than a four-lane street for several blocks through the Old North End. This provided a perfect opportunity for Old North End residents to directly observe the immediate effects of safety-sizing N. Nevada Avenue, particularly during the morning and evening rush hours.

In terms of personal observation, making N. Nevada Avenue one-lane-in-each-direction during bridge repairs did not appreciably slow traffic or cause long traffic backups, even at rush hours. Many Old North End residents, including officers of the local homeowners' association, checked on the project at various times and saw no problems developing. Furthermore, no complaints were registered in local news media, either to the slowdown on N. Nevada Avenue or to the possibility that some N. Nevada Avenue traffic might have been diverted to N. Cascade Avenue.

It should be noted that the bridge repair detour was a much bigger obstacle to traffic than safety-sizing N. Nevada Avenue to one-lane-in-each-direction would be. Traffic in the direction being diverted had to slow down to 10-15 miles per hour, make a hard 90 degree turn, drive over to the other lane of traffic, make a hard 90 degree turn again, drive over the half of the bridge not being repaired, then slow down a second time to 10-15 miles per hour to make the two 90 degree turns required to get back to going in the right direction.

In a simple single-lane situation, for the benefit of safety-sizing, traffic would move past without having to slow down or make any turns. Both the northbound and southbound lanes would be moving at a steady 35 miles per hour, the speed limit. In other words, safety-sizing N. Nevada Avenue to one-lane-in-each-direction would not be as much of a barrier to traffic as the bridge repair project was. It thus would not divert much traffic over to N. Cascade Avenue.

TRAFFIC STATISTICS FOUND ONLY MINOR DIVERSIONS OF N. NEVADA AVENUE TRAFFIC TO N. CASCADE AVENUE DURING THE N. NEVADA AVENUE BRIDGE REPAIR PROJECT:

In order to determine the statistical effect of the lane closings on N. Nevada Avenue due to the bridge repair project, actual traffic counts were recorded. Both the period before the bridge project began and the period while the extra lanes had been closed, were measured. Two traffic periods were studied:

1. 12 hours; 6 A.M. to 6 P.M.
2. Peak Hour (afternoon rush).

The (12 hours; 6 A.M. to 6 P.M.) results were:

1. Daily (12 hours; 6 A.M. to 6 P.M.) total traffic volumes on both N. Nevada and N. Cascade avenues decreased by 4 percent when N. Nevada Avenue became one-lane-in-each-direction. Those figures suggested some of the N. Nevada Avenue traffic was diverted to parallel Interstate highway I-25.
2. Daily (12 hours; 6 A.M. to 6 P.M.) traffic volumes on N. Nevada Avenue decreased by 9 percent.
3. Daily (12 hours; 6 A.M. to 6 P.M.) traffic volumes on N. Cascade Avenue increased by 7 percent.

The Peak Hour (afternoon rush) results were:

1. Peak Hour (afternoon rush) volumes on both N. Nevada and N. Cascade avenues decreased by 8 percent (200 vehicles per hour) when N. Nevada Avenue became one-lane-in-each-direction. Those figures confirmed that some of the N. Nevada Avenue traffic was diverted to parallel Interstate highway I-25.
2. Peak Hour (afternoon rush) volumes on N. Nevada Avenue decreased 17 percent, which equates to 290 vehicles per hour (slightly less than five vehicles per minute).
3. Peak Hour (afternoon rush) volumes on N. Cascade Avenue increased by 13 percent, which equates to only 90 additional vehicles per hour or one additional vehicle every 40 seconds.

4. There was no increase in traffic on Wood Avenue, which measured only 50 vehicles per hour during Peak Hour (afternoon rush). Wood Avenue parallels N. Cascade Avenue. This lack of increased traffic on Wood Avenue suggested there also was no increase in traffic on N. Corona Street, which parallels N. Wahsatch Avenue.[9]

Apparently the slight increase in traffic on N. Cascade Avenue during the N. Nevada Avenue bridge repairs - an additional vehicle every 40 seconds at Peak Hour (afternoon rush) – was undetectable. No complaints about it were received by the local homeowners' association.

[9] "CC Transportation Plan," p. 15-17.

SAFETY-SIZING ALL FOUR ARTERIAL STREETS THROUGH THE OLD NORTH END WOULD REDUCE OVERALL TRAFFIC VOLUMES:

The N. Nevada Avenue bridge closing generated traffic data that led to the following conclusion: If all four major arterials through the Old North End – N. Cascade Avenue, N. Nevada Avenue, N. Weber Street, and N. Wahsatch Avenue – were safety-sized to one-lane-in-each-direction, overall traffic on all four streets would be diverted to I-25. Computer testing of this idea in a travel demand model revealed a 5 to 10 percent reduction in north-south traffic volumes through the Old North End if all four streets were safety-sized simultaneously.[10]

It is important to consider the likely nature of the automobile drivers who would be diverted from driving through the Old North End because of the safety-sizing of the major arterial streets. These would be drivers who like to change lanes frequently in order to drive at higher speeds and pass as many other cars on the street as possible. They would be more likely to accelerate their vehicles more rapidly and noisily, make quick stops with screeching brakes, and exceed the speed limit. In a residential area with great historical significance and a number of educational institutions such as the Old North End, diverting such drivers away from the neighborhood is a good idea.

TRAFFIC SIGNALS, NOT ROAD CAPACITY, LIMIT TRAFFIC MOVEMENT IN THE OLD NORTH END

Because Uintah Street is a major arterial running east-west in Colorado Springs, "green time" is limited for northbound traffic coming into the Old North End. "Green time" is the amount of time a traffic signal is green and permitting traffic to move in a particular direction on a particular street. It is mainly the shortened green time at traffic signals at Uintah Street that limits northbound traffic moving into the neighborhood. It is limited green time and not inadequate lane capacity that creates the congestion.

[10] "CC Transportation Plan," p. 17.

Motorists who drive in the Old North End are well aware that northbound traffic on the four major north/south arterials comes in bunches (some would say platoons). As the traffic signals at E. Uintah Street turn green, a group of cars are permitted to move through the intersection and stay in a bunch as they move northbound through the Old North End. After the bunch goes by, the street is empty until another bunch of cars is released by the next green signal. This phenomenon can be observed in the area of traffic signal intersections throughout the Old North End.

To repeat the main point: it is limited green time at traffic signal intersections and not lack of road capacity that creates traffic problems in the Old North End. This fact further justifies the proposal to cut the four major arterial streets running through the neighborhood from two-lanes-in-each-direction to one-lane-in-each-direction.[11]

SAFETY-SIZING
EAST-WEST STREETS
IN THE OLD NORTH END:

Fontanero Street can be greatly improved by reducing from two-lanes-in-each-direction to one-lane-in-each-direction from Cascade Avenue to El Paso Street. This would permit the addition of bike lanes plus a center left turn lane. Over 80 percent of the westbound traffic on Fontanero Street makes a left turn at N. Wahsatch Avenue, N. Weber Street, or N. Nevada Avenue in order to head downtown.[12] Providing a left turn lane at those three intersections would be most beneficial for traffic safety in the Old North End.

The Peak Hour Volume on E. Fontanero Street at N. Nevada Avenue is 300 while the One Lane Capacity is 450, leaving an Excess Capacity in one lane of 150.[13]

In the same manner, E. Uintah Street from east of N. Wahsatch Avenue to the Shooks Run bridge should be safety-sized to one-lane-in-each-direction.

[11] "CC Transportation Plan," p. 14.
[12] "CC Transportation Plan," p. 24.
[13] "CC Transportation Plan," p. 15.

SAFETY-SIZING STREETS TO ONE-LANE-IN-EACH-DIRECTION IS WIDESPREAD IN COLORADO SPRINGS:

Safety-sizing streets is already widely practiced in Colorado Springs. A good example close to the Old North End is Templeton Gap Road from E. Fillmore Street to N. El Paso Street. This road carries heavy traffic which feeds into Fontanero Street and then goes downtown on Wahsatch, Weber, Nevada, and Cascade. Since being changed from two-lanes-in each-direction to one-lane-in-each-direction, traffic has flowed smoothly and there have been virtually no complaints, either from automobile drivers or residents along the road.

A second example, also near the Old North End, is Willamette Avenue. It is safety-sized eastbound through the downtown area all the way to Shook's Run and beyond. Because it has a landscaped median, Willamette Avenue looks like many Old North End streets with landscaped medians. In this case, the closed lane has been turned into a bike path.

And then there is Cresta Road in the Skyway neighborhood where it runs past Cheyenne Mountain High School. Having one-lane-in-each-direction through this area greatly increases pedestrian safety for students at the high school.

An additional example is Flying W Ranch Road from 30th Street to Centennial Boulevard. In this case one-lane-in-each direction provides safety benefits to students at Chipeta Elementary School and children going to play in nearby Chipeta Park.

An example, and one with moderately heavy traffic, is E. Uintah Street from east of N. El Paso Street to Palmer Park Boulevard. Originally this was a three-lane street with two lanes eastbound and one lane westbound. A number of years ago the two eastbound lanes were reduced to one-eastbound lane. This permitted the widening of both the eastbound and the westbound lanes, giving motorists more room to drive comfortably and safely through the area.

Simple observation of this "Uintah Narrows," as it is called, revealed the effectiveness of this form of traffic calming. There are no noticeable traffic backups, even at rush hour, and traffic moves smoothly in both directions with cars running generally at the speed limit. Crosswalk lengths were reduced from three traffic lanes to two traffic lanes for students crossing at Institute Street to get to

Taylor Elementary School. This represented a significant increase in school pedestrian safety.

Perhaps the best example of safety-sizing an arterial street in Colorado Springs is Lake Avenue in the Broadmoor neighborhood. This was originally a four-lane street with two-lanes-in-each-direction. From just west of N. Nevada Avenue (at Strickler) to the Broadmoor Hotel, Lake Avenue was reduced to one-lane-in-each-direction. This permitted the addition of bike lanes as well as left-turn lanes and right-turn lanes. These traffic calming measures made Lake Avenue approaching the Broadmoor Hotel into one of the pleasantest – and safer – streets to drive in Colorado Springs.

In northeastern Colorado Springs, portions of two streets that are wide enough for two-lanes-in-each-direction but are lane-striped for one-lane-in-each direction are found on Flintridge Drive and Montebello Street. In eastern Colorado Springs, S. Hancock Avenue is safety-sized from E. Pike's Peak Avenue to E. Fountain Boulevard.

Automobile drivers can best understand the feel and impact of safety-sized streets by driving one or more of the many streets in Colorado Springs that have received this beneficial treatment.