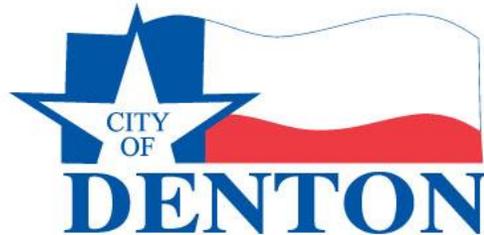


Mobility Committee

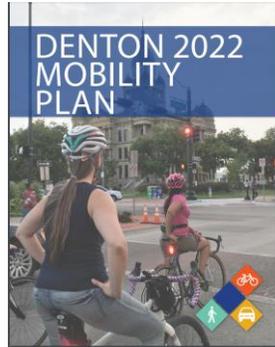
"Bollards" --And other Forms of Separation--

December 18, 2024

MC 24-044



Purpose and Agenda



Connection to City Goals and Strategies

- Goal 1: ‘Highest priority is human life over all road decisions’
- Strategy 7.13: ‘Use physical road features to improve safety’
- Strategy 8.14: ‘Design low-stress bike/ped facilities to attract all ages/abilities’

Outline

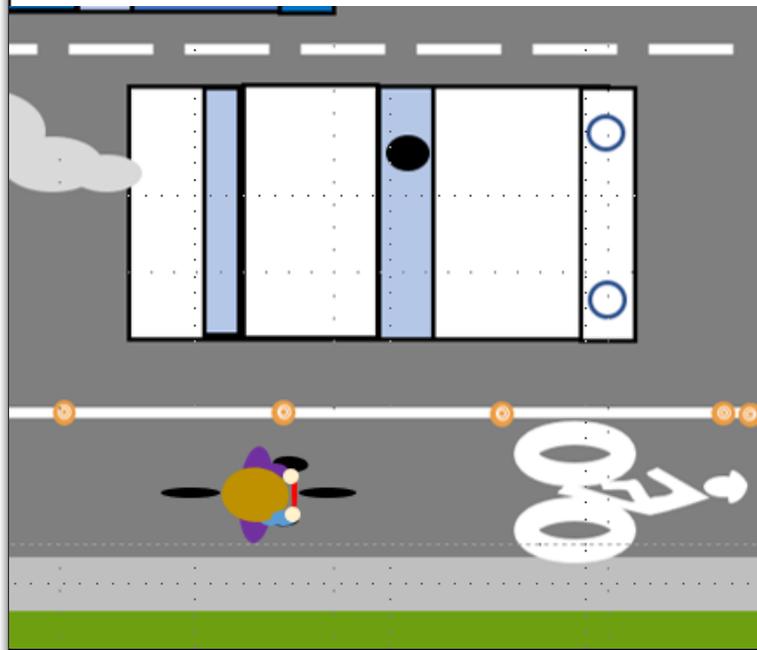
- Bollards Add Real & Perceived Safety
- Bollards Add Timely Safety
- Recommendations & Characteristics
- Questions

Bollards Add Real and Perceived Safety

BEING SAFER

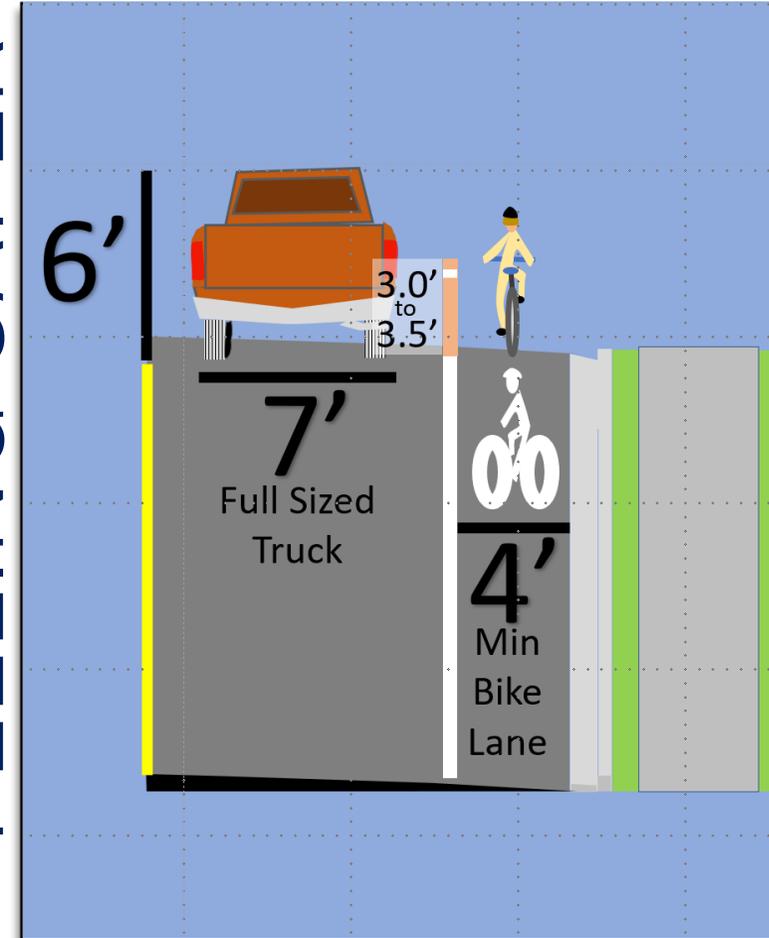
56%

BOLLARDS CUT BIKE V AUTO
CRASHES IN HALF WHEN ADDED TO
A BIKE LANE*

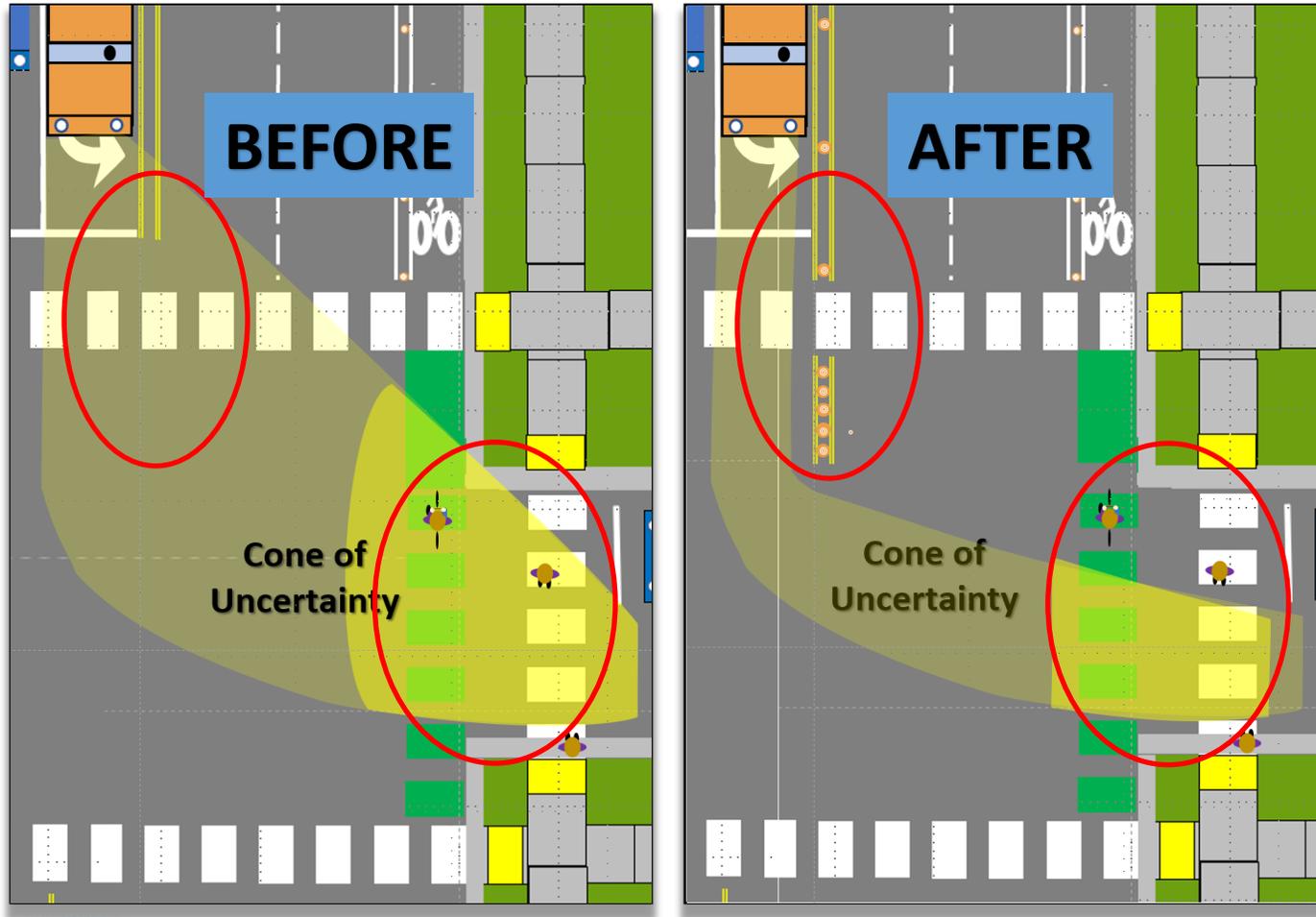


*Source: FHWA Crash Modification Clearing House

FEELING SAFER



Decreased Exposure to Left-turning Autos



- Greater clarity for cyclists, pedestrians, and motorists where the turning motorist is going.
- Reduce crossers' exposure time to autos
- 65 percent reduction in high speed¹ left-turns
- Enhanced safety at intersections with shared thru and left-turn lanes (no median)

¹ >15 mph

Bollards Add Timely Safety



Seattle

How the Timely Safety of Bollards Save Lives

Current Safety Conditions in Denton

- 56 Fatal/Significant Injury crashes¹
- Half on repeat locations²
- 1/3 were pedestrians or cyclists

Traditional-build Design & Construction

- Years to Design and years to build
- Demolition, Storm Water, Utilities
- Significant Budgeting.

Quick-build Design & Construction

- Weeks to Test and Build
- No demolition, Storm Water, Utilities
- A small fraction of the cost

Bollards are important to many quick-build projects

¹2023 Excluding I-35, I-35E, I-35W. ²Based on CRIS Reported Street & Intersecting Street, 2019-2023

Key Recommendations

Recommendation 1: Keep and Expand on Bollard Use to Save Lives In Denton

Recommendation 2: If exploring design options:

- Maintain or expand on bollard visibility
- Maintain or increase the bollard mass to alert motorists of a hit

Recommendation 3: Design Bollard use based first on safety needs i.e. road speeds rather than standardizing their use and design citywide

Recommended Typical Bollards

<p>Height</p>						<p>Recommended Typical</p> <p>30-42"</p>
<p>Width/Mass</p>						<p>Optimize Width & Mass to Space Available</p>
<p>Interval Spacing</p>						<p>3'-10', Group for Highlighting</p>
<p>Reflectivity</p>						<p>Standard Reflectivity, Retro-reflectivity for Highlighting</p>
<p>Placemaking & Innovation</p>						

QUESTIONS?



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