CAMPO Goal and Target Setting Recommendation

March 28, 2025

As part of the Capital Area Metropolitan Planning Organization (CAMPO) Blueprint for Safety Plan, CAMPO requested a hybrid approach to safety performance measure target setting. Safety performance target setting for State departments of transportation (DOTs) and metropolitan planning organizations (MPOs) focuses on five annual FHWA-required safety performance measures:

- Number of fatalities
- Rate of fatalities per 100 million vehicle miles traveled (VMT)
- Number of serious injuries
- Rate of serious injuries per 100 million VMT
- Number of non-motorized fatalities and serious injuries

CAMPO has historically adopted targets based on the North Carolina Department of Transportation's (NCDOT's) goals and approach. As part of the Blueprint for Safety Plan, CAMPO researched alternatives for setting safety performance measure targets and identified several approaches for target setting. Options include setting annual targets to align with long term safety goals, setting targets based on recent trends, or following a hybrid approach. The target setting approach described in this memo acknowledges recent trends and aligns with an overall proposed goal for the CAMPO Blueprint for Safety. While CAMPO has an ultimate goal of zero fatal and serious injury crashes, these proposed interim safety targets will help support and guide progress towards ultimate Vision Zero.

PROPOSED SAFETY GOAL: A 50% reduction of fatal and serious injury crashes by 2055 and ultimately moving toward zero fatal and serious injury crashes.

This goal for the Blueprint for Safety is further described in three, ten-year horizons with the expected change on an annual basis to achieve the ten-year horizon goals. The goal is further described in these near-term, mid-term, and long-term ten-year horizons because each horizon is uniquely affected by the schedule and implementation of projects and programs proposed over the next 30 years.

Near Term (2025-2035): To achieve the ultimate long term goal, an interim goal for the 2025-2035 horizon is to reduce serious injury and fatal crashes by 10%. This reduction will be influenced by increased implementation of low-cost countermeasures, the launch of education programs addressing key crash types, and installation of safety projects developed by NCDOT HSIP in the region. An <u>annual 1%</u> reduction (i.e., a 1% reduction each year based on the preceding year's numbers) will reach this goal and be used by CAMPO to set annual performance measure safety targets. CAMPO will re-evaluate progress toward this interim goal every two to three years and adjust the 2035 horizon goal accordingly.

Mid-Term (2036-2045): During the 2036-2045 horizon, CAMPO's goal will shift to a more aggressive reduction in serious injury and fatal crashes by an additional 15-20%. This mid-term goal equates to a <u>2% annual reduction</u> and potential measure for safety targets, as well as result in a 25-30% reduction from 2024 numbers by 2045. A 20% reduction between 2036-2045 will be influenced by safety enhancements made to State Transportation Improvement Program (STIP) and Locally Administered Projects Program (LAPP) projects constructed by 2040. This reduction will also be supported by ongoing safety projects

implemented by NCDOT HSIP, as well as targeted and sustained enforcement to minimize impaired driving and speeding, as well as unbelted occupants or children not placed in car seat restraints.

Long-Term(2046-2055): During the 2046-2055 horizon, an ambitious goal will be set to reduce serious injury and fatal crashes by at least an additional 30%. This long-term goal equates to a <u>4%</u> annual reduction and potential measure for safety targets. A 30% reduction between 2036-2045 will be influenced by continued work through the NCDOT HSIP, and new local and SPOT projects developed as part of planning studies and safety reviews in earlier horizons. These new projects will use data and screening tools created as part of the Blueprint for Safety Plan and feed into the CAMPO 2060 MTP update. This step-down approach to setting the long term goal envisions at least a 50% reduction in fatal and serious injuries between 2024 and 2055. CAMPO aspires to eliminate serious injuries and fatalities in the region, approaching a goal of "zero" after the design year for the 2055 MTP.

Focus Crash Types for CAMPO

CAMPO has established, through the Blueprint for Safety Plan, several focus crash types that represent either more than 10% of the fatal and serious injury crashes reported between 2016 and 2023 in the CAMPO region *or* have an equal or higher share of fatal and serious injury crashes when compared with statewide averages per crash types. The focus crash types for CAMPO are shown in the table below in comparison with statewide shares of fatal and serious injury crashes.

Focus Crash Type	CAMPO Percent of Fatal and Serious Injury Crashes	Statewide Percent of Fatal and Serious Injury Crashes
Lane Departure	47%	53%
Seat Belts and Car Seats	24%	27%
Intersection	24%	22%
Impaired Driving	23%	23%
Speed	16%	18%
Older Drivers	15%	11%
Motorcycle	12%	14%
Pedestrian	11%	10%
Bicyclists	2%	2%

The focus crash types that are associated with roadway elements and are most easily treated by a variety of engineering countermeasures include lane departure, intersections, pedestrians, and bicyclists. These crash types represent 84% of the contributing factors reported for the fatal and serious injury crashes on CAMPO region roadways. This total does not account for a modest degree of overlap among the crash types (at least 76% of all fatal and serious injury crashes analyzed included at least one flag of the four engineering focus crash types). By prioritizing these types of crashes for engineering safety review, at the locations where these crashes have been most prevalent or are at highest risk of occurring in the future, CAMPO and its member agencies will be most successful at achieving its goals for reducing serious injury and fatal crashes by 2055.

Project Types to Support Goals for the Blueprint for Safety

The types of example strategies/project types that could be implemented within each horizon is described in more detail below, with an expected reduction in crashes (shown in parentheses as a %) by implementing example countermeasures at sites that meet design criteria and where specific safety needs are identified. These Crash Reduction Factors (CRFs) are sourced from the <u>NCDOT Project Development Crash Reduction Factor</u> (CRF) Information workbook (2023). Since the focus of the Blueprint for Safety Plan is a reduction of fatalities and serious injuries, CRFs shown exclude studies that evaluated only non-injury crashes or very specific crash maneuvers (i.e., left turn same roadway).

Near-term: During this horizon, the Blueprint for Safety calls for systemic improvement across the CAMPO region to be implemented, focusing on lane departure, intersections, pedestrians and bicyclist related crashes. These improvements will be implemented along the High Injury Network (top 1% of roadway segments and intersections in the MPO region) at locations with identified crash risks and safety needs. Examples include the following with an expected crash reduction for locations improved:

- Pedestrian countdown signal heads to improve crossing safety for pedestrians at signalized intersections (25% reduction)
- All Way Stop Control to improve intersection safety at low volume and rural intersections (72-87% reduction).
- Curve warning signage to minimize lane departure crashes in curves (33% reduction).
- Lighting along segments to improve visibility for all roadway users between intersections (28-69% reduction).
- Improved signal timing to improve reliability and reduce crashes at signalized intersections (15% reduction).

Mid-term: During this horizon, CAMPO and its member agencies will continue to implement systemic improvements for lane departure, pedestrians, and intersections at high-risk locations as part of LAPP projects and within maintenance programs. Additionally, CAMPO and member agencies will have reviewed and included additional safety improvements within all programmed STIP projects, based on prior Road Safety Audits (RSAs), site analysis and coordination with NCDOT. Countermeasures to be considered for all STIP projects may include the following:

- Single-lane roundabouts to reduce conflict points and speeds, while improving safety at intersections (55%-78% reduction)
- Sidewalk to provide separated space for pedestrians to avoid crashes while walking along the roadway (74% reduction)
- Raised medians in urban areas to minimize frontal impact and angle crashes, resulting from lane departure, and to reduce crashes at intersections (22-39% reduction)
- Pedestrian crossing improvements to provide more visible or protected crossings (25-55% reduction)
- Rumble strips on non-access control roads to increase driver awareness of potential lane departure crashes (22-40% reduction)
- Bike lanes to provide dedicated travel space for bicyclists along high-risk roadways (41-63% reduction)

Long-term: During this horizon, NCDOT, CAMPO and its member agencies will implement newly developed safety projects- identified for the 2060 CAMPO MTP update and as part of corridor studies, sub-area plans, local plans and new SPOT projects. All plans and projects will use Blueprint for Safety crash risk data and

field review to proactively identify appropriate typical road sections, design speeds and crash countermeasures. Decisions will be guided based on CAMPO policies that member agencies and NCDOT follow for developing Complete Streets and setting appropriate design speeds or posted limits along local and state system roads. Countermeasures considered will include those mentioned for the Mid-Term horizon. Implementation is expected to be widespread across all projects implemented in CAMPO, resulting in a faster reduction in crashes.