

Engineering Speed Management Countermeasures: A Desktop Reference of Potential Effectiveness in Reducing Speed

July 2014

This chart summarizes studies about engineering countermeasures used to manage speeds. Studies where an increase in speed were reported are also shown since this information is also relevant in selection of countermeasures.

| Countermeasure | Safety Focus | Area | Roadway | Reference | Sites | Speed Limit (mph) | Volume (vpd) | | Mean Speed (mph) | | | 85 th %tile Speed (mph) | | | Period | Location | Notes |
|---|--------------|-------------|---------|-----------|-------|-------------------|--------------|--------------|------------------|-------|--------|------------------------------------|-------|--------|--------|----------|------------------|
| | | | | | | | Before | After | Before | After | Change | Before | After | Change | | | |
| Vertical Deflections Within the Roadway | | | | | | | | | | | | | | | | | |
| Speed Hump—rounded, raised area placed across the roadway, typically 12 to 14 feet long | pedestrian | urban | local | 1 (1999) | 178 | — | 48 to 11544 | 46 to 110443 | — | — | — | 35 | 27 | -8 | — | various | |
| | pedestrian | urban | local | 2 (2005) | 7 | — | 400 to 4362 | 401 to 3384 | — | — | — | 32 | 26 | -6 | — | VA | |
| | pedestrian | urban | local | 3 (2000) | 4 | — | 475 to 1506 | 433 to 1343 | — | — | — | 36 | 31 | -5 | — | WA | |
| | pedestrian | urban | local | 4 (2005) | 1 | 25 | 1300 | — | 22 | 23 | 1 | 37 | 29 | -8 | 1-mon | FL | |
| | pedestrian | rural/urban | local | 5 (2002) | 3 | 25 | 218 to 746 | — | 24 | 18 | -6 | 28 | 22 | -6 | 1-mon | IA | |
| | pedestrian | urban | — | 1 (1999) | 4 | — | — | — | — | — | — | 36 | 29 | -7 | — | — | with speed table |
| | pedestrian | urban | — | 1 (1999) | 2 | — | 2456 to 3685 | 2593 to 2931 | — | — | — | 38 | 25 | -13 | — | — | with choker |



| Countermeasure | Safety Focus | Area | Roadway | Reference | Sites | Speed Limit (mph) | Volume (vpd) | | Mean Speed (mph) | | | 85 th %tile Speed (mph) | | | Period | Location | Notes |
|---|--------------|-----------------|--------------|-----------|-------|-------------------|--------------|--------------|------------------|-------|--------|------------------------------------|----------|----------|---------------|-----------|-------------------------------|
| | | | | | | | Before | After | Before | After | Change | Before | After | Change | | | |
| Speed Cushion —raised area typically 6 to 7 feet wide that allows most emergency vehicles to straddle the hump | pedestrian | urban | — | 1 (1999) | 1 | — | 3323 | 2321 | — | — | — | 35 | 28 | -7 | — | various | |
| | pedestrian | — | — | 2 (2005) | 2 | — | 1042 to 1556 | 693 to 1563 | — | — | — | 31 to 37 | 26 to 30 | -5 to -7 | — | VA | |
| Speed Table —a long speed hump typically 22 feet in length with a flat section in the middle and ramps on the ends | pedestrian | urban | — | 1 (1999) | 72 | — | 198 to 14500 | 242 to 14400 | — | — | — | 37 | 31 | -6 | — | various | |
| | pedestrian | urban | residential | 6 (2003) | 19 | — | 198 to 2102 | 364 to 2061 | — | — | — | 38 | 29 | -9 | — | GA | |
| | pedestrian | rural community | 2-lane | 7 (2007) | 1 | — | 1200 | — | 27 | 24 | -3 | 33 | 29 | -4 | 1-mon | IA | |
| | pedestrian | rural community | local | 5 (2002) | 3 | 25 | 218 to 746 | — | 24 | 18 | -6 | 28 | 22 | -6 | 1-mon | IA | removable speed table |
| | pedestrian | urban | — | 1 (1999) | 2 | — | 6500 to 8440 | 6400 to 6780 | — | — | — | 37 | 29 | -8 | — | — | with center island |
| | pedestrian | urban | residential | 8 (2001) | 1 | 30 | 1600 | — | 34 | 23 | -11 | 38 | 27 | -11 | within 12-mon | MN | raised crosswalk |
| Raised Intersection —a raised plateau, with ramps on all approaches, where roads intersect | pedestrian | urban | — | 1 (1999) | 2 | — | — | — | — | — | — | 37 | 38 | 1 | — | various | |
| | pedestrian | urban | local | 9 (2004) | 1 | — | — | — | — | — | — | 30 | 30 | 0 | 12-mon | NY | |
| Horizontal Deflections/Roadway Narrowing | | | | | | | | | | | | | | | | | |
| Choker/Bulb-out —mid-block curb extensions that narrow road by extending the sidewalk or widening the planting strip | pedestrian | urban | — | 1 (1999) | 4 | — | 750 to 6150 | 331 to 5040 | — | — | — | 34 | 30 | -4 | — | various | |
| | pedestrian | urban | residential | 10 (1997) | 6 | — | — | — | — | — | — | 30 | 29 | -1 | — | — | |
| | pedestrian | urban | residential | 8 (2001) | 1 | — | 950 to 1050 | — | 34 | 31 | -4 | 38 | 34 | -4 | within 12-mon | MN | choker with crosswalk |
| | pedestrian | urban | residential | 8 (2001) | 1 | — | 950 to 1050 | — | 33 | 31 | -2 | 37 | 34 | -3 | within 12-mon | MN | choker + "SLOW" + landscaping |
| | pedestrian | rural community | 2-lane | 11 (2010) | — | — | — | — | 39 | 39 | 0 | — | — | — | — | simulator | curb + gutter bulb-outs |
| Neck Down —intersection curb extensions that narrow a road by extending the width of a sidewalk | pedestrian | urban | — | 1 (1999) | 3 | — | 2800 to 8110 | 4660 to 5660 | — | — | — | 29 | 30 | 1 | — | various | |
| | pedestrian | urban | local street | 9 (2004) | 2 | — | — | — | 23 | 25 | 2 | 27 | 31 | 4 | 12-mon | NY | |

| Countermeasure | Safety Focus | Area | Roadway | Reference | Sites | Speed Limit (mph) | Volume (vpd) | | Mean Speed (mph) | | | 85 th %tile Speed (mph) | | | Period | Location | Notes |
|---|--------------|-----------------------------|-----------------------------|-----------|-------|-------------------|--------------|--------------|------------------|-------|--------|------------------------------------|-------|--------|------------------|-------------------|---------------------------------|
| | | | | | | | Before | After | Before | After | Change | Before | After | Change | | | |
| Chicanes —curb extensions that alternate from one side of the street to the other forming s-shaped curves, also includes lateral shifts which shift traffic to one side of the road for an extended distance and then back | pedestrian | urban | — | 10 (1997) | 2 | — | 1380 to 3200 | 790 to 2400 | — | — | — | 33 | 27 | -6 | — | various | |
| | pedestrian | urban | residential | 3 (2000) | 4 | — | 1380 to 1965 | 790 to 1993 | — | — | — | 31 | 22 | -9 | at least 4 years | WA | |
| | pedestrian | urban | arterial (school zone) | 12 (1998) | 1 | — | 8000 | — | — | — | — | 31 | 28 | -3 | — | Canada | |
| | pedestrian | rural community | 2-lane | 11 (2010) | — | — | — | — | 39 | 30 | -9 | — | — | — | — | simulator | |
| | pedestrian | rural community | 2-lane | 11 (2010) | — | — | — | — | 39 | 33 | -6 | — | — | — | — | simulator | painted chicane |
| Center Island —raised or painted island along the centerline that narrows travel lanes | pedestrian | urban | — | 1 (1999) | — | — | — | — | — | — | — | — | — | — | — | various | |
| | pedestrian | urban | — | 1 (1999) | 2 | — | 6500 to 8440 | 6400 to 6780 | — | — | — | 37 | 29 | -8 | — | — | |
| | pedestrian | urban | local street | 9 (2004) | 1 | — | — | — | 30 | 28 | -2 | 36 | 33 | -3 | 12-mon | NY | |
| | pedestrian | rural | — | 13 (2002) | 2 | — | — | — | — | — | — | 44 | 38 | -6 | 1-mon | MN | |
| | pedestrian | rural | within community (2-lane) | 13 (2002) | 1 | 30 | 900 | — | 34 | 29 | -5 | 44 | 38 | -6 | 2-wks | MN | |
| | pedestrian | rural | within community (2-lane) | 13 (2002) | 1 | 30 | 900 | — | 35 | 31 | -4 | 44 | 38 | -6 | 6-wks | MN | |
| | pedestrian | rural | community entrance (2-lane) | 7 (2007) | 2 | 25 | 2669 | — | 31 | 29 | -1 | 36 | 35 | -1 | 1-mon | IA | combined + tubular channelizers |
| | pedestrian | rural | community entrance (2-lane) | 14 (2008) | — | 35 | — | — | 41 | 43 | 2 | 51 | 50 | -1 | — | simulator | median |
| | pedestrian | rural | community entrance (2-lane) | 14 (2008) | — | 35 | — | — | 41 | 40 | -1 | 52 | 46 | -6 | — | simulator | median + gateway |
| | pedestrian | rural | community entrance (2-lane) | 14 (2008) | — | 35 | — | — | 41 | 41 | 0 | 52 | 50 | -2 | — | simulator | median in series |
| | pedestrian | rural | community entrance (2-lane) | 14 (2008) | — | 35 | — | — | 41 | 40 | -1 | 51 | 46 | -5 | — | simulator | median in series with crosswalk |
| pedestrian | rural | community entrance (2-lane) | 15 (2013) | 3 | 25 | 593 to 1448 | — | 28 | 27 | 1 | 35 | 34 | -1 | 1-mon | IA | temporary curbing | |

| Countermeasure | Safety Focus | Area | Roadway | Reference | Sites | Speed Limit (mph) | Volume (vpd) | | Mean Speed (mph) | | | 85 th %tile Speed (mph) | | | Period | Location | Notes | |
|---|-------------------|-----------------|--------------------------------|-----------|-------|-------------------|--------------|-------|------------------|-------|--------|------------------------------------|-------|--------|--------|----------------|---------------------------------------|------------------------------|
| | | | | | | | Before | After | Before | After | Change | Before | After | Change | | | | |
| <i>(cont'd)</i> Center Island —raised or painted island along the centerline that narrows travel lanes | pedestrian | rural | community entrance (2-lane) | 15 (2013) | 3 | 25 | 593 to 1448 | — | 29 | 27 | -2 | 35 | 33 | -2 | 12-mon | IA | temporary curbing | |
| | pedestrian | rural | community entrance (2-lane) | 16 (1999) | 5 | — | — | — | 38 | 29 | -9 | 44 | 33 | -11 | — | Austria | braking islands | |
| | roadway departure | rural | 2-lane | 17 (2008) | 8 | 50 to 55 | — | — | — | — | -4 | — | — | -5 | — | Austria | painted island + edge line | |
| Reduce Lane Width with Markings —narrowing of the lanes using pavement markings, median, etc. | pedestrian | rural community | 2-lane | 7 (2007) | 2 | 30 | 1680 | — | 28 | 29 | 1 | 34 | 35 | 1 | 1-mon | IA | narrowing with pavement marking | |
| | pedestrian | rural community | 2-lane | 7 (2007) | 2 | 30 | 1680 | — | 28 | 29 | 1 | 34 | 35 | 1 | 12-mon | IA | narrowing with pavement marking | |
| | pedestrian | urban | residential | 18 (1984) | 2 | — | — | — | 34 | 34 | 0 | — | — | — | 1-wk | FL | narrowing using edgeline + centerline | |
| | intersection | rural | intersection (2-lane) | 19 (2008) | 9 | 50 to 55 | — | — | — | — | -4 | — | — | -5 | 3-mon | PA, KY, MO, FL | edgeline + centerline | |
| | roadway departure | urban | high speed intersection 4-lane | 20 (2008) | — | — | — | — | — | — | -4 | — | — | — | — | — | — | 2.7 ft. lane width reduction |
| | roadway departure | urban | freeway exit | 21 (2000) | — | — | — | — | 31 | 30 | -1 | — | — | — | 1-mon | VA | narrowing using herringbone markings | |
| | roadway departure | rural day | 2-lane | 22 (2005) | 3 | — | — | — | 57 | 58 | 1 | — | — | — | 1-mon | TX | edgeline + centerline | |
| | roadway departure | rural night | 2-lane | 22 (2005) | 3 | — | — | — | 60 | 59 | 1 | — | — | — | 1-mon | TX | edgeline (existing centerline) | |
| Road Diet —reducing the number of lanes by reallocating roadway space for other uses (e.g. bike lanes, center turn lanes, medians, parking, shoulder lanes, etc. | pedestrian | urban | 4-lane undivided | 23 (2001) | 1 | — | — | — | — | — | -4 | — | — | — | — | CA | 4- to 3-lane | |
| | pedestrian | urban | 4-lane undivided | 23 (2001) | 1 | — | — | — | 35 | 32 | -3 | — | — | — | — | IA | 4- to 3-lane | |
| | pedestrian | urban | 4-lane undivided | 23 (2001) | 1 | — | — | — | — | — | — | — | — | -1 | — | IA | 4- to 3-lane | |
| | pedestrian | urban | minor arterial | 8 (2001) | 1 | 35 | 5400 to 9100 | — | 45 | 43 | -2 | 51 | 49 | -2 | — | MN | 4- to 3-lane | |

| Countermeasure | Safety Focus | Area | Roadway | Reference | Sites | Speed Limit (mph) | Volume (vpd) | | Mean Speed (mph) | | | 85 th %tile Speed (mph) | | | Period | Location | Notes |
|---|-------------------|-------------------------|-----------------------------|-----------|-------|-------------------|----------------|-------|------------------|-------|--------|------------------------------------|-------|--------|--------|---------------------|--------|
| | | | | | | | Before | After | Before | After | Change | Before | After | Change | | | |
| Surface Treatments and Markings | | | | | | | | | | | | | | | | | |
| Transverse Rumble Strips —raised or grooved patterns installed on the roadway travel lane or shoulder pavements perpendicular to the direction of travel | pedestrian | rural | high-speed intersection | 20 (2008) | 3 | 70 | — | — | — | — | — | — | — | -1 | 5-mon | — | |
| | pedestrian | rural | intersection | 24 (2003) | 11 | — | — | — | — | — | — | 55 | 54 | -1 | 1-mon | TX | |
| | roadway departure | rural | 2-lane | 25 (2005) | 3 | — | — | — | 46 | 46 | -0 | 49 | 52 | 3 | 1-wk | KY | cars |
| | work zone | rural | work zone (2-lane) | 26 (2000) | 2 | — | 1250 to 1850 | — | — | — | -2 | — | — | — | 1-day | TX | cars |
| | work zone | rural | work zone (2-lane) | 26 (2000) | 2 | — | 1250 to 1850 | — | — | — | -2 | — | — | — | 1-day | TX | trucks |
| Transverse Bars —lines placed across the lane perpendicular to direction of travel | pedestrian | rural | community entrance (2-lane) | 15 (2013) | 3 | — | 843 to 1947 | — | 38 | 37 | -1 | 44 | 44 | 0 | 1-mon | IA | |
| | pedestrian | rural | community entrance (2-lane) | 15 (2013) | 3 | — | 843 to 1947 | — | 37 | 38 | 1 | 44 | 43 | -1 | 12-mon | IA | |
| | work zone | rural | work zone (4-lane divided) | 39 (2003) | 1 | — | — | — | — | — | -2 | — | — | -2 | — | Canada | |
| | work zone | rural | work zone | 40 (2001) | 1 | 70 | 18000 | — | 64 | 63 | -1 | 68 | 67 | -1 | — | KS | |
| Converging Chevrons —on-pavement chevrons | roadway departure | rural | freeway to freeway ramp | 36 (2003) | — | — | 39010 | — | 64 | 49 | -15 | 70 | 53 | -17 | 20-mon | WI | |
| | roadway departure | rural | freeway to freeway ramp | 37 (2008) | — | 30 adv. | 18000 | — | 47 | 47 | 0 | 53 | 52 | -1 | 1-mon | TX | |
| | roadway departure | rural | freeway to freeway ramp | 37 (2008) | — | 30 adv. | 18000 | — | 48 | 48 | 0 | 53 | 53 | 0 | 6-mon | TX | |
| | roadway departure | rural | S-curve (2-lane) | 38 (2006) | 1 | 35/15 adv. | — | — | — | — | — | 37 | 33 | -4 | 15-mon | OH | |
| | pedestrian | rural | intersection | 8 (2001) | 1 | 30 | 4000 | — | 36 | 32 | -4 | 41 | 35 | -6 | 1-wk | MN | |
| | pedestrian | rural | intersection | 8 (2001) | 1 | 30 | 4000 | — | 36 | 34 | -2 | 41 | 39 | -2 | 2-yr | MN | |
| | pedestrian | rural | intersection | 8 (2001) | 1 | 30 | 4000 | — | 36 | 31 | -5 | 41 | 35 | -5 | 4-yr | MN | |
| | pedestrian | rural | community entrance | 7 (2007) | 2 | 25 | 2200 to 2420 | — | 30 | 29 | -1 | 36 | 35 | -1 | 1-mon | IA | |
| | pedestrian | rural | community entrance | 7 (2007) | 2 | 25 | 2200 to 2420 | — | 30 | 29 | -1 | 36 | 33 | -3 | 12-mon | IA | |
| | roadway departure | rural | freeway to freeway ramp | 35 (2010) | — | — | 18000 to 18600 | — | 31 | 29 | -2 | 35 | 33 | -2 | 1-mon | GA | |
| roadway departure | rural | freeway to freeway ramp | 35 (2010) | — | — | 18000 to 18600 | — | 31 | 30 | -1 | 35 | 34 | -1 | 9-mon | GA | converging chevrons | |

| Countermeasure | Safety Focus | Area | Roadway | Reference | Sites | Speed Limit (mph) | Volume (vpd) | | Mean Speed (mph) | | | 85 th %tile Speed (mph) | | | Period | Location | Notes |
|---|-------------------|-------|-----------------------|-----------|-------|-------------------|--------------|------------|------------------|-------|--------|------------------------------------|-------|--------|-----------|-------------|------------------------------------|
| | | | | | | | Before | After | Before | After | Change | Before | After | Change | | | |
| Optical Speed Bars — transverse stripes on travel lane (sometimes spaced progressively closer to create the illusion of traveling faster) | pedestrian | rural | intersection | 20 (2008) | 4 | — | — | — | — | — | -1 | — | — | -1 | — | — | |
| | pedestrian | rural | community entrance | 7 (2007) | 3 | 25 to 30 | 886 to 1870 | — | 39 | 38 | -1 | 47 | 46 | -1 | 1-mon | IA | |
| | pedestrian | rural | community entrance | 7 (2007) | 2 | 25 to 30 | 234 to 662 | 263 to 646 | 39 | 34 | -5 | 47 | 42 | -5 | 1-mon | IA | with DSFS —“YOUR SPEED XX” |
| | pedestrian | rural | intersection | 27 (2010) | 1 | — | 4,450 | — | 53 | 51 | -2 | 62 | 60 | -2 | 6-mon | New Zealand | herringbone pattern |
| | pedestrian | rural | community entrance | 28 (2011) | 1 | — | 2800 | — | 37 | 29 | -8 | — | — | — | — | Italy | with dragon’s teeth |
| | intersection | rural | intersection (2-lane) | 29 (2013) | 1 | 37 | — | — | 42 | 31 | -11 | 48 | 3 | -13 | 12-mon | Spain | with RPM + reflectors to guardrail |
| | intersection | rural | intersection | 30 (2000) | — | 62 | — | — | — | — | -6 | — | — | — | simulator | Australia | full lane width |
| | intersection | rural | intersection | 30 (2000) | — | 62 | — | — | — | — | -4 | — | — | — | simulator | Australia | optical speed bar |
| | roadway departure | rural | horizontal curves | 25 (2005) | 3 | — | — | — | 46 | 46 | 0 | 49 | 49 | 0 | 1-wk | KY | transverse bars |
| | roadway departure | rural | horizontal curves | 25 (2005) | 3 | — | — | — | 46 | 45 | -1 | 49 | 51 | 2 | 1-yr | KY | transverse bars |
| | roadway departure | rural | 4-lane undivided | 31 (2007) | 2 | 45 | 12000 | — | 55 | 52 | -3 | — | — | — | 1-wk | VA | transverse bars |
| | roadway departure | rural | 4-lane undivided | 31 (2007) | 2 | 45 | 12000 | — | 56 | 49 | -7 | — | — | — | 3-mon | VA | transverse bars |
| | roadway departure | rural | curve (2-lane) | 32 (2007) | 2 | 45-65/40 adv. | — | — | 48 | 49 | 1 | 52 | 56 | 4 | 4-mon | NY, MI, TX | optical speed bar |
| | roadway departure | rural | curve (2-lane) | 31 (2007) | — | — | 5215 | — | 46 | 44 | -2 | — | — | — | 1-wk | VA | optical speed bar |
| | roadway departure | rural | curve (2-lane) | 31 (2007) | — | — | 5215 | — | 46 | 45 | -1 | — | — | — | 3-mon | VA | optical speed bar |
| | roadway departure | rural | 2-lane | 33 (2009) | — | 55 day 45 night | — | — | 64 | 62 | -2 | 71 | 69 | -2 | 1-wk | AZ | optical speed bar |
| | roadway departure | rural | 2-lane | 33 (2009) | — | 55 day/45 night | — | — | 64 | 59 | -4 | 71 | 68 | -3 | 3-mon | AZ | optical speed bar |
| | roadway departure | rural | curve (freeway) | 34 (2008) | — | 50 | — | — | 57 | 54 | -3 | 60 | 59 | -1 | 1-wk | WI | optical speed bar |
| | roadway departure | rural | freeway exit ramp | 32 (2007) | 1 | 65/30 adv. | — | — | 38 | 34 | -4 | 44 | 39 | -5 | 4-mon | NY, MI, TX | optical speed bar |
| | roadway departure | rural | 2-lane | 27 (2010) | 1 | — | 2500 | — | 51 | 50 | -1 | 60 | 59 | -1 | 2-wk | New Zealand | herringbone |

| Countermeasure | Safety Focus | Area | Roadway | Reference | Sites | Speed Limit (mph) | Volume (vpd) | | Mean Speed (mph) | | | 85 th %tile Speed (mph) | | | Period | Location | Notes |
|---|-------------------|-----------------|--------------------------------|--------------------|-------|-------------------|--------------|-------|------------------|-------|--------|------------------------------------|-------|--------|--------|-------------|-----------------------------------|
| | | | | | | | Before | After | Before | After | Change | Before | After | Change | | | |
| <i>(cont'd)</i> Optical Speed Bars —transverse stripes on travel lane (sometimes spaced progressively closer to create the illusion of traveling faster) | roadway departure | rural | 2-lane | 27 (2010) | 1 | — | 2500 | — | 51 | 48 | -3 | 60 | 60 | 0 | 6-mon | New Zealand | herringbone |
| | roadway departure | rural | freeway ramp | 21 (2000) | 4 | — | — | — | 33 | 30 | -3 | — | — | — | 2-wk | NY, VA | herringbone markings |
| | pedestrian | rural | intersection | 27 (2010) | 1 | — | 4,450 | — | 53 | 52 | -1 | 61 | 61 | 0 | 2-wks | — | Herringbone |
| “SLOW” Legend on Pavement | pedestrian | urban | residential | 8 (2001) | 1 | 30 | 950 | — | 28 | 29 | 0 | 32 | 33 | 1 | — | MN | |
| | roadway departure | urban | curve (2-lane) day | 41 (1998) | 1 | 35/15 adv | 5000 | — | 34 | 33 | -1 | — | — | — | 2-wk | VA | with curve symbol |
| | roadway departure | urban | curve (2-lane) night | 41 (1998) | 1 | 35/15 adv | 5000 | — | 35 | 32 | -3 | — | — | — | 2-wk | VA | with curve symbol |
| | roadway departure | rural | curve | 15 (2012) | 2 | 55/none to 35 mph | 780 to 1880 | — | 49 | 48 | -1 | 54 | 53 | -1 | 1-mon | IA | with curve symbol+ bars |
| | roadway departure | rural | curve | 15 (2012) | 2 | 55/none to 35 mph | 780 to 1880 | — | 49 | 48 | -1 | 54 | 53 | -1 | 12-mon | IA | with curve symbol + bars |
| Speed Limit XX Pavement Legend | pedestrian | rural | within community | 7 (2007) | 1 | 25 | 2200 | — | 30 | 30 | 0 | 35 | 34 | -1 | 1-mon | IA | |
| | pedestrian | rural | within community | 7 (2007) | 1 | 25 | 2200 | — | 30 | 29 | -1 | 35 | 33 | -2 | 12-mon | IA | |
| | pedestrian | rural | within community | 7 (2007) | 1 | 25 | 2420 | — | 28 | 28 | 0 | 32 | 3 | -1 | 1-mon | IA | with lane narrowing |
| | pedestrian | rural | within community | 7 (2007) | 1 | 25 | 2420 | — | 28 | 29 | 1 | 32 | 33 | 1 | 12-mon | IA | with lane narrowing |
| | pedestrian | rural | community entrance | 7 (2007);15 (2013) | 5 | 25 to 35 | 1009 to 2850 | — | 37 | 35 | -2 | 42 | 40 | -3 | 1-mon | IA | with red colored pavement |
| | pedestrian | rural | community entrance | 7 (2007);15 (2013) | 2 | 25 to 35 | 1009 to 2850 | — | 40 | 39 | -1 | 46 | 45 | -1 | 12-mon | IA | with red colored pavement |
| | pedestrian | rural | community entrance | 15 (2013) | 3 | 25 to 35 | 1009 to 3070 | — | 35 | 34 | -1 | 40 | 39 | -1 | 1-mon | IA | colored pavement + dragon's teeth |
| “50 MPH” + Curve Symbol | roadway departure | urban | curve (divided 4-lane highway) | 42 (2005) | 1 | — | — | — | 67 | 60 | -7 | — | — | — | 1-mon | TX | |
| “CURVE AHEAD” Pavement Legend | roadway departure | rural | curve | 42 (2005) | 1 | — | 990 | — | 56 | 61 | 5 | — | — | — | 3-mon | TX | |
| | roadway departure | rural | curve | 42 (2005) | 1 | — | 1160 | — | 60 | 59 | -1 | — | — | — | 3-mon | TX | |
| Vertical Delineation | | | | | | | | | | | | | | | | | |
| Center Island Using Tubular Channelizers | pedestrian | rural community | community entrance (2-lane) | 7 (2007) | 2 | 25 | 2669 | — | 30 | 29 | -1 | 36 | 35 | -1 | 1-mon | IA | |

| Countermeasure | Safety Focus | Area | Roadway | Reference | Sites | Speed Limit (mph) | Volume (vpd) | | Mean Speed (mph) | | | 85 th %tile Speed (mph) | | | Period | Location | Notes |
|---|-------------------|-------|-----------------------------|-----------|-------|-------------------|--------------|-------|------------------|-------|--------|------------------------------------|-------|--------|--------|-----------|---|
| | | | | | | | Before | After | Before | After | Change | Before | After | Change | | | |
| Post Mounted Delineators —reflective buttons place on post at edge of road | roadway departure | rural | curve (2-lane) | 25 (2005) | 3 | — | — | — | 46 | 46 | 0 | 49 | 50 | 1 | 1-wk | KY | |
| | roadway departure | rural | curve (2-lane) | 11 (2010) | — | — | — | — | 43 | 35 | -8 | — | — | — | — | simulator | one side of curve |
| | roadway departure | rural | curve (2-lane) | 11 (2010) | — | — | — | — | 43 | 34 | -9 | — | — | — | — | simulator | both sides of curve |
| Streaming PMD | roadway departure | rural | curve (2-lane) | 11 (2010) | — | — | — | — | 43 | 24 | -19 | — | — | — | — | simulator | |
| Chevrons with Reflective Post | roadway departure | rural | curve (2-lane) | 46 (2010) | 2 | — | — | — | 56 | 54 | -2 | 65 | 63 | -2 | 1-mon | TX | |
| Reflective Post Added to Existing Chevrons | roadway departure | rural | curve (2-lane) | 47 (2012) | 4 | — | 830 to 2280 | — | 50 | 50 | 0 | 56 | 55 | -1 | 1-mon | IA | |
| | roadway departure | rural | curve (2-lane) | 47 (2012) | 1 | — | 1710 | — | 54 | 53 | -1 | 59 | 57 | -2 | 12-mon | IA | |
| Layered Landscaping —roadside plantings used to create vertical friction | pedestrian | rural | community entrance (2-lane) | 14 (2008) | — | 35 | — | — | 43 | 44 | 1 | 54 | 53 | -1 | — | simulator | at treatment |
| | pedestrian | rural | community entrance (2-lane) | 14 (2008) | — | 35 | — | — | 42 | 40 | -2 | 51 | 45 | -6 | — | simulator | 300 ft. downstream of treatment |
| Landscaped Median | roadway departure | urban | collector | 48 (2000) | 1 | — | 11400 | 10900 | 37 | 33 | -4 | 43 | 37 | -6 | — | CO | with curbside islands |
| Dynamic Signing | | | | | | | | | | | | | | | | | |
| Speed Activated Speed Limit Sign —a blank out sign that displays “SPEED LIMIT XX” for vehicles exceeding threshold speed | roadway departure | urban | collector | 55 (2013) | 1 | 30 | — | — | 33 | 27 | -6 | 36 | 30 | -6 | 2-mon | CO | with striping between travel/ parking lanes + signing |
| | roadway departure | urban | collector | 55 (2013) | 2 | 30 | — | — | — | — | — | 39 | 34 | -5 | 1-yr | CO | with physical narrowing + pedestrian refuge |
| | roadway departure | urban | collector | 55 (2013) | 3 | 30 | — | — | — | — | — | 37 | 33 | -4 | 1-yr | CO | |
| | roadway departure | urban | collector | 55 (2013) | 1 | 30 | — | — | — | — | — | 37 | 32 | -5 | 3-yr | CO | |
| Speed Limit Sign with LED | pedestrian | rural | community entrance | 15 (2013) | 2 | 25 | 980 to 2240 | — | 33 | 30 | -3 | 42 | 28 | -4 | 1-mon | IA | |
| | pedestrian | rural | community entrance | 15 (2013) | 2 | 25 | 980 to 2240 | — | 33 | 30 | -3 | 42 | 38 | -4 | 12-mon | IA | |

| Countermeasure | Safety Focus | Area | Roadway | Reference | Sites | Speed Limit (mph) | Volume (vpd) | | Mean Speed (mph) | | | 85 th %tile Speed (mph) | | | Period | Location | Notes | |
|--|-------------------|----------------|---------------------------|---------------------|----------|-------------------|--------------|-------|------------------|-------|--------|------------------------------------|-------|--------|-----------|-----------|-------|--|
| | | | | | | | Before | After | Before | After | Change | Before | After | Change | | | | |
| Speed Feedback Sign— displays the speed of drivers traveling over the threshold speed with the message "YOUR SPEED XX" | pedestrian | urban | school zone | 50 (2005) | 3 | 35 to 45 | — | — | 49 | 44 | -5 | 55 | 49 | -6 | 1-wk | TX | | |
| | pedestrian | urban | school zone | 50 (2005) | 3 | 35 to 45 | — | — | 49 | 42 | -7 | 54 | 51 | -3 | 4-mon | TX | | |
| | pedestrian | rural | community entrance | 7 (2007); 15 (2013) | 1 | 25 | 295 | 367 | 38 | 37 | -1 | 46 | 45 | -1 | 1-mon | IA | | |
| | pedestrian | rural | community entrance | 7 (2007); 15 (2013) | 1 | 25 | 295 | 318 | 38 | 37 | 0 | 46 | 45 | -1 | 12-mon | IA | | |
| | pedestrian | rural | community entrance | 51 (2006) | 4 | 30 to 45 | — | — | 46 | 41 | -5 | 51 | 46 | -5 | 1-mon | MN | | |
| | pedestrian | rural | community entrance | 51 (2006) | 4 | 30 to 45 | — | — | 47 | 40 | -7 | 51 | 46 | -5 | 12-mon | MN | | |
| | pedestrian | rural | community entrance | 52 (2009) | 12 | 25 to 40 | — | — | 42 | 36 | -6 | — | — | — | 1-wk | PA | | |
| | intersection | urban | signalized intersection | 50 (2005) | 2 | 45 to 55 | — | — | 51 | 47 | -4 | 57 | 54 | -4 | 1-wk | TX | | |
| | intersection | urban | signalized intersection | 50 (2005) | 2 | 45 to 55 | — | — | 51 | 49 | -2 | 57 | 55 | -2 | 4-mon | TX | | |
| | roadway departure | urban | collector (2-lane) | 53 (2004) | 4 | 25 | 2700 to 4900 | — | — | 29 | 28 | -1 | 34 | 32 | -5 | 1-mon | WA | |
| | roadway departure | urban | collector (2-lane) | 53 (2004) | 4 | 25 | 2700 to 4900 | — | — | 28 | 27 | -1 | 33 | 28 | -5 | 2-yr | WA | |
| | roadway departure | urban | collector/ minor arterial | 54 (2009) | 16 | 25 | — | — | — | — | — | — | — | — | -2 | 1-yr | WA | |
| | roadway departure | urban | collector/ minor arterial | 54 (2009) | 16 | 25 | — | — | — | — | — | — | — | — | -3 | 5 to 8-yr | WA | |
| | roadway departure | urban | collector/ minor arterial | 54 (2009) | 16 | 30 to 35 | — | — | — | — | — | — | — | — | -4 | 1-yr | WA | |
| | roadway departure | urban | collector/ minor arterial | 54 (2009) | 16 | 30 to 35 | — | — | — | — | — | — | — | — | -6 | 5 to 8-yr | WA | |
| | roadway departure | urban | 2-lane | 54 (2009) | 9 | 25 to 35 | — | — | — | — | — | — | 40 | 36 | -4 | 1-mon | WA | |
| | roadway departure | urban | 2-lane | 54 (2009) | 4 | 25 to 35 | — | — | — | — | — | — | 37 | 33 | -4 | 12-mon | WA | |
| | roadway departure | urban | 2-lane | 54 (2009) | 9 | 25 to 35 | — | — | — | — | — | — | 39 | 35 | -4 | 2 to 3-yr | WA | |
| | roadway departure | urban | 2-lane | 54 (2009) | 11 | 25 to 35 | — | — | — | — | — | — | 38 | 33 | -5 | 4+ yr. | WA | |
| | roadway departure | urban | curve (2-lane) | 54 (2009) | 1 | 30 | — | — | — | — | — | — | 41 | 38 | -3 | 1-mon | WA | |
| roadway departure | urban | curve (2-lane) | 54 (2009) | 2 | 30 to 35 | — | — | — | — | — | — | 42 | 38 | -4 | 2 to 3-yr | WA | | |

| Countermeasure | Safety Focus | Area | Roadway | Reference | Sites | Speed Limit (mph) | Volume (vpd) | | Mean Speed (mph) | | | 85 th %tile Speed (mph) | | | Period | Location | Notes |
|---|---|-------------------|-------------------------|-----------|-----------|------------------------|--------------|-------|------------------|-------|--------|------------------------------------|-------|--------|------------|----------------------------|----------------|
| | | | | | | | Before | After | Before | After | Change | Before | After | Change | | | |
| <i>(cont'd)</i> Speed Feedback Sign —displays the speed of drivers traveling over the threshold speed with the message “YOUR SPEED XX” | roadway departure | urban | curve (2-lane) | 54 (2009) | 1 | 30 | — | — | — | — | — | 41 | 35 | -6 | 4+ yr. | WA | |
| | roadway departure | rural | interstate (curve) | 56 (2006) | 2 | 45 adv. | 16750 | — | 56 | 53 | -3 | — | — | — | 2 to 4-mon | OR | passenger cars |
| | roadway departure | rural | interstate (curve) | 56 (2006) | 2 | 45 adv. | 16750 | — | 51 | 49 | -2 | — | — | — | 2 to 4-mon | OR | trucks |
| | roadway departure | rural | curve (2-lane) | 57 (2013) | 11 | 50 to 65/30 to 50 adv. | — | — | — | — | -2 | — | — | -3 | 1-mon | AZ, FL, IA, OH, OR, TX, WA | |
| | roadway departure | rural | curve (2-lane) | 57 (2013) | 11 | 50 to 65/30 to 50 adv. | — | — | — | — | -3 | — | — | -3 | 12-mon | AZ, FL, IA, OH, OR, TX, WA | |
| | roadway departure | rural | curve (2-lane) | 57 (2013) | 11 | 50 to 65/30 to 50 adv. | — | — | — | — | -2 | — | — | -2 | 2-yr | AZ, FL, IA, OH, OR, TX, WA | |
| | roadway departure | rural | curve (2-lane) | 50 (2005) | 2 | 55/20 adv. | — | — | 36 | 33 | -3 | 42 | 39 | -3 | 1-wk | TX | |
| | roadway departure | rural | curve (2-lane) | 50 (2005) | 2 | 55/20 adv. | — | — | 36 | 35 | -1 | 42 | 40 | -2 | 4-mon | TX | |
| | roadway departure | rural | curve (2-lane) | 58 (2012) | 3 | — | 455 to 710 | — | 54 | 51 | -3 | 61 | 57 | -4 | 1-mon | MN | passenger cars |
| | work zone | rural | interstate | 62 (2011) | 3 | 55 | 28000 | — | 61 | 57 | -4 | 66 | 61 | -5 | 1-wk | NE | passenger cars |
| | work zone | rural | interstate | 62 (2011) | 3 | 55 | 28000 | — | 58 | 55 | -3 | 62 | 59 | -3 | 1-wk | NE | trucks |
| | work zone | rural | interstate | 62 (2011) | 3 | 55 | 28000 | — | 61 | 56 | -5 | 66 | 60 | -6 | 5-wk | NE | passenger cars |
| | work zone | rural | interstate | 62 (2011) | 3 | 55 | 28000 | — | 58 | 56 | -3 | 62 | 59 | -3 | 5-wk | NE | trucks |
| | work zone | rural | arterial | 63 (2006) | 1 | — | — | — | — | — | — | 66 | 63 | -3 | — | TX | |
| | Speed Feedback Sign with Action Message —“YOUR SPEED XX” + “SLOW DOWN” | roadway departure | urban | 2-lane | 54 (2009) | 9 | 25 | — | — | — | — | — | 34 | 32 | -2 | 1 to 6-mon | WA |
| roadway departure | | urban | 2-lane | 54 (2009) | 3 | 25 | — | — | — | — | — | 33 | -31 | -2 | 12-mon | WA | |
| roadway departure | | urban | 2-lane | 54 (2009) | 5 | 25 | — | — | — | — | — | 33 | 31 | -2 | 2 to 3-yr | WA | |
| roadway departure | | urban | curve (2-lane) | 54 (2009) | 1 | 25 | — | — | — | — | — | 36 | 31 | -5 | 1 to 6-mon | WA | |
| roadway departure | | urban | curve (2-lane) | 54 (2009) | 1 | 25 | — | — | — | — | — | 36 | 31 | -5 | 4+ yr. | WA | |
| intersection | | rural | signalized intersection | 20 (2008) | 3 | 50 to 55 | — | — | — | — | -2 | — | — | -1 | — | WA, TX | at sign |
| work zone | | rural | interstate | 63 (2006) | 1 | — | — | — | — | — | — | 65 | 63 | -2 | — | TX | |
| pedestrian | | rural | community entrance | 7 (2007) | 1 | 25 | 2870 | — | 31 | 26 | -5 | 59 | 52 | -7 | 3-mon | IA | SLOW DOWN 25 |

| Countermeasure | Safety Focus | Area | Roadway | Reference | Sites | Speed Limit (mph) | Volume (vpd) | | Mean Speed (mph) | | | 85 th %tile Speed (mph) | | | Period | Location | Notes |
|--|-------------------|-------|--------------------|---------------------|-------|------------------------|--------------|------------|------------------|-------|--------|------------------------------------|-------|--------|--------|----------------------------|-------------------------|
| | | | | | | | Before | After | Before | After | Change | Before | After | Change | | | |
| Speed Feedback Sign plus New Curve Advisory Speed Sign | roadway departure | rural | curve (2-lane) | 58 (2012) | 3 | — | 455 to 710 | — | 54 | 50 | -4 | 61 | 57 | -4 | 12-mon | MN | PC |
| | roadway departure | rural | curve (2-lane) | 58 (2012) | 3 | — | 455 to 710 | — | 53 | 50 | -3 | 53 | 50 | -3 | 1-mon | MN | center of curve, |
| | roadway departure | rural | curve (2-lane) | 58 (2012) | 3 | — | 455 to 710 | — | 53 | 50 | -3 | 53 | 49 | -4 | 12-mon | MN | center of curve |
| “YOUR SPEED XX” | pedestrian | rural | community entrance | 7 (2007); 15 (2013) | 2 | 25 to 30 | 234 to 662 | 263 to 646 | 39 | 34 | -5 | 47 | 42 | -5 | 1-mon | IA | with optical speed bars |
| “SLOW” | pedestrian | rural | recreational area | 13 (2002) | 1 | 35 | — | — | 36 | 36 | 0. | 43 | 44 | 1 | 1-mon | MN | |
| Speed Activated Curve Warning Sign and “SLOW DOWN” Action Message | roadway departure | rural | curve (2-lane) | 59 (2002) | 3 | 30 to 50 | — | — | 39 | 35 | -4 | — | — | — | — | United Kingdom | |
| | roadway departure | rural | curve (2-lane) | 57 (2013) | 11 | 50 to 70/35 to 50 adv. | — | — | — | — | -2 | — | — | -2 | 1-mon | AZ, FL, IA, OH, OR, TX, WA | |
| | roadway departure | rural | curve (2-lane) | 57 (2013) | 11 | 50 to 70/35 to 50 adv. | — | — | — | — | -3 | — | — | -2 | 12-mon | AZ, FL, IA, OH, OR, TX, WA | |
| | roadway departure | rural | curve (2-lane) | 57 (2013) | 11 | 50 to 70/35 to 50 adv. | — | — | — | — | -2 | — | — | -2 | 2-yr | AZ, FL, IA, OH, OR, TX, WA | |
| “TOO FAST FOR CURVE” | roadway departure | rural | curve (interstate) | 60 (2003) | 1 | 50 | — | — | — | — | -3 | — | — | — | — | WI | trucks |
| “50 MPH CURVES” + “YOUR SPEED XX” | roadway departure | rural | interstate | 61 (2000) | 5 | 55 to 65/50 to 60 adv. | — | — | 64 | 63 | -1 | — | — | — | — | CA | passenger cars |
| “50 MPH CURVES” + “YOUR SPEED XX” | roadway departure | rural | interstate | 61 (2000) | 5 | 55 to 65/50 to 60 adv. | — | — | 58 | 56 | -2 | — | — | — | — | CA | trucks |
| Flashing Beacon | work zone | rural | 2-lane | 64 (2007) | 3 | 45 | — | — | — | — | -3 | — | — | -3 | — | SC | |
| | work zone | rural | multi-lane | 64 (2007) | 1 | 45 | — | — | — | — | -3 | — | — | -3 | — | SC | |
| | work zone | rural | interstate | 64 (2007) | 1 | 45 | — | — | — | — | -6 | — | — | -5 | — | SC | |
| Variable Speed Limit | roadway departure | rural | freeway | 65 (2005) | 2 | — | — | — | — | — | — | 82 | 77 | -5 | — | WA | |
| Curve Warning Sign with Flashers — flashing lights on sign | roadway departure | rural | 2-lane curve | 25 (2005) | 2 | — | — | — | 47 | 46 | -1 | 51 | 50 | -1 | — | — | |

| Countermeasure | Safety Focus | Area | Roadway | Reference | Sites | Speed Limit (mph) | Volume (vpd) | | Mean Speed (mph) | | | 85 th %tile Speed (mph) | | | Period | Location | Notes |
|---|-------------------|----------|-------------------------|-----------|-------|------------------------|----------------|--------------|------------------|-------|--------|------------------------------------|-------|--------|--------------|--|----------------------------|
| | | | | | | | Before | After | Before | After | Change | Before | After | Change | | | |
| Static Signing | | | | | | | | | | | | | | | | | |
| Chevron Signs —use of standard chevron signing | roadway departure | rural | 2-lane | 46 (2010) | 2 | 70/45 & 50 adv. | — | — | 57 | 55 | -2 | 65 | 64 | -1 | 1-mon | TX | |
| | roadway departure | rural | 2-lane | 25 (2005) | 1 | — | — | — | 48 | 48 | 0 | 52 | 52 | 0 | 1-wk | KY | at PC |
| | roadway departure | rural | 2-lane | 46 (2010) | 2 | 70/45 & 50 adv. | — | — | 56 | 54 | -2 | 65 | 63 | -2 | 1-mon | TX | with full post delineation |
| Chevrons with Full Post Delineation | roadway departure | rural | 2-lane | 47 (2012) | 4 | 50 to 55/35 to 50 adv. | — | — | 50 | 50 | 0 | 56 | 55 | -1 | 1-mon | IA | |
| Curve Sign + Flags | roadway departure | rural | 2-lane | 25 (2005) | 3 | — | — | — | 46 | 45 | -1 | 49 | 49 | 0 | 1-wk | KY | at PC |
| Arrow (MUTCD: W1-6) | roadway departure | rural | 2-lane | 25 (2005) | 1 | — | — | — | 43 | 44 | 1 | 46 | 47 | 1 | 1-wk | KY | at PC |
| Intersection Treatments | | | | | | | | | | | | | | | | | |
| Roundabout —large, raised, circular islands at the middle of major intersections, around which all oncoming vehicles must traverse | pedestrian | rural | — | 66 (2005) | 19 | — | — | 20400 | — | — | — | 48 | 28 | -20 | — | MD, CA, WA, MI, Canada | |
| | intersection | suburban | Y intersection (2-lane) | 67 (2005) | 1 | — | — | 5500 | — | — | — | 32 | 24 | -8 | 1 to 3 years | MI | |
| | intersection | urban | — | 68 (2005) | 1 | — | 11000 to 12000 | 15500 | — | — | — | 47 | 33 | -14 | — | CO | |
| Traffic Circle —circular, raised island placed within the middle of an intersection | intersection | urban | — | 1 (1999) | 45 | — | 240 to 10910 | 269 to 8280 | — | — | — | 34 | 30 | -4 | — | TX, WA, CA, CO, NC, OH, OR, FL, GA, MD, NE, MA, MN, AZ | |
| Access Control | | | | | | | | | | | | | | | | | |
| Half-Closure | pedestrian | urban | — | 1 (1999) | 11 | — | 220 to 9540 | 151 to 9180 | — | — | — | 30 | 24 | -6 | — | — | |
| Diagonal Diverter | pedestrian | urban | — | 1 (1999) | 7 | — | 474 to 2057 | 177 to 574 | — | — | — | 28 | 27 | -1 | — | — | |
| Full Closure | pedestrian | urban | — | 1 (1999) | 2 | — | 1540 to 1980 | 850 to 1080 | — | — | — | 18 | 13 | -3 | — | — | |
| Choker + Speed Hump | pedestrian | urban | — | 1 (1999) | 2 | — | 2456 to 3685 | 2593 to 2931 | — | — | — | 38 | 25 | -13 | — | — | |
| Half-Closure + Median Barrier | pedestrian | urban | — | 1 (1999) | 2 | — | 10160 to 10320 | 1120 to 2120 | — | — | — | 38 | 32 | -6 | — | — | |

| Countermeasure | Safety Focus | Area | Roadway | Reference | Sites | Speed Limit (mph) | Volume (vpd) | | Mean Speed (mph) | | | 85 th %tile Speed (mph) | | | Period | Location | Notes |
|--|--------------|-------|--------------------|-----------|-------|-------------------|--------------|-------|------------------|-------|--------|------------------------------------|-------|--------|--------|----------------|--|
| | | | | | | | Before | After | Before | After | Change | Before | After | Change | | | |
| Gateway Entrance Treatments | | | | | | | | | | | | | | | | | |
| Entrance Treatments — multiple treatments placed at community entrance to reduce speeds into community | pedestrian | rural | community entrance | 49 (2000) | 1 | 40 | — | — | 45 | 41 | -4 | 50 | 46 | -5 | 1-mon | United Kingdom | red bars + signing + bulb-outs |
| | pedestrian | rural | community entrance | 49 (2000) | 1 | 20 | — | — | 35 | 24 | -11 | 41 | 30 | -11 | 1-mon | United Kingdom | narrowing + speed cushions |
| | pedestrian | rural | community entrance | 49 (2000) | 1 | 20 | — | — | 35 | 15 | -10 | 41 | 30 | -11 | 12-mon | United Kingdom | narrowing + speed cushions |
| | pedestrian | rural | community entrance | 49 (2000) | 1 | 30 | — | — | 40 | 30 | -11 | 47 | 35 | -13 | 1-mon | United Kingdom | red box + speed limit + dragon's teeth + signing |
| | pedestrian | rural | community entrance | 49 (2000) | 1 | 30 | — | — | 40 | 33 | -8 | 47 | 38 | -9 | 12-mon | United Kingdom | red box + speed limit + dragon's teeth + signing |
| | pedestrian | rural | community entrance | 49 (2000) | 1 | 30 | — | — | 38 | 33 | -5 | 43 | 39 | -4 | 1-mon | United Kingdom | red box + speed limit + dragon's teeth + signing |
| | pedestrian | rural | community entrance | 49 (2000) | 1 | 30 | — | — | 38 | 32 | -6 | 43 | 36 | -7 | 12-mon | United Kingdom | red box + speed limit + dragon's teeth + signing |
| | pedestrian | rural | community entrance | 49 (2000) | 1 | 30 | — | — | 41 | 39 | -2 | 47 | 47 | 0 | 1-mon | United Kingdom | red patches + "SLOW" + dragon's teeth + signing |
| | pedestrian | rural | community entrance | 49 (2000) | 1 | 30 | — | — | 41 | 37 | -4 | 47 | 44 | -3 | 12-mon | United Kingdom | red patches + "SLOW" + dragon's teeth + signing |
| | pedestrian | rural | community entrance | 49 (2000) | 1 | 40 | — | — | 51 | 45 | -6 | 60 | 51 | -9 | 1-mon | United Kingdom | red lines of decreasing size and width + signing |
| | pedestrian | rural | community entrance | 49 (2000) | 1 | 40 | — | — | 51 | 45 | -6 | 60 | 53 | -7 | 12-mon | United Kingdom | red lines of decreasing size and width + signing |
| | pedestrian | rural | community entrance | 49 (2000) | 1 | 40 | — | — | 44 | 39 | -6 | 50 | 43 | -7 | 1-mon | United Kingdom | red box + speed limit + signing |
| | pedestrian | rural | community entrance | 49 (2000) | 1 | 40 | — | — | 44 | 38 | -7 | 50 | 43 | -7 | 12-mon | United Kingdom | red box + speed limit + signing |

Notes: Information is presented to one significant digit unless the study only provided integer values. In some cases the study only provided resulting changes in speed rather than providing the actual before and after value.

Abbreviations

common state destinations are used and are not listed here (e.g. Iowa = IA)
advisory (adv)
intersection (isect)
month (mon.)
pedestrian (ped)
post mounted delineator (PMD)
rumble strips (RS)
run off road (ROR)
years (yrs.)

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