

Traffic Control Program



City of Milwaukee
Department of Public Works
February, 2012

Capital Program Funding Elements

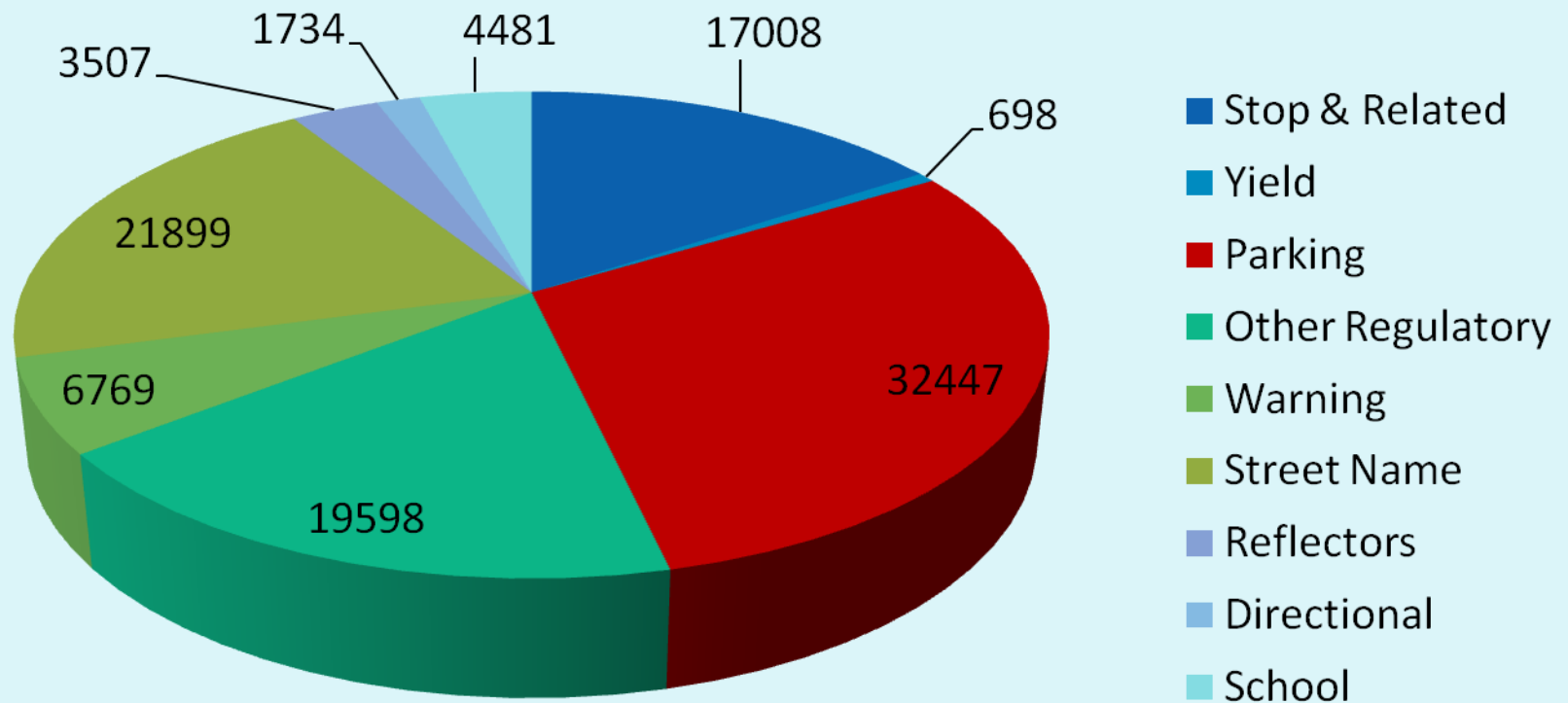
Traffic Signs



Traffic Signs by Sign Type

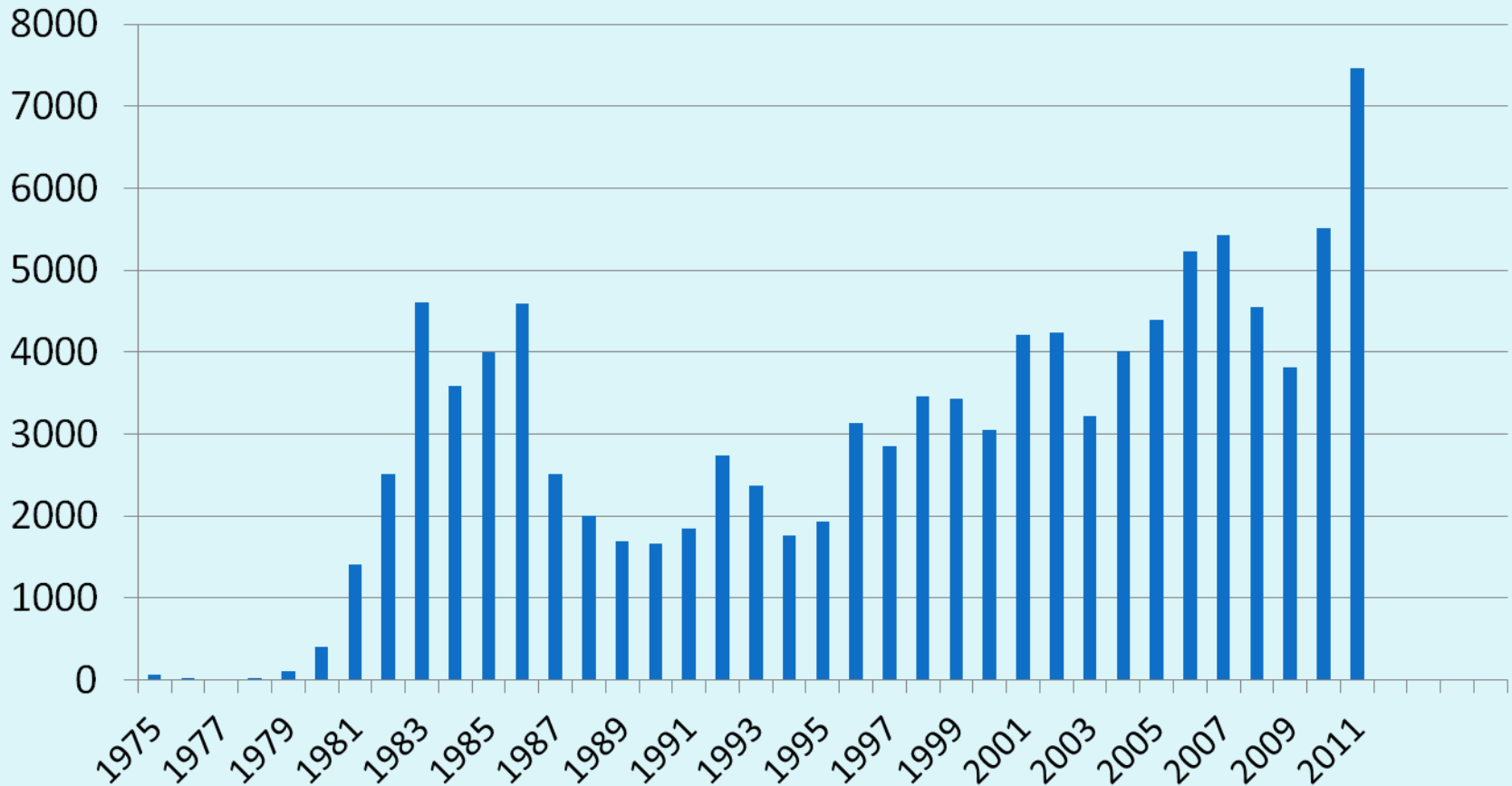
(As of January 1, 2012)

Total Existing Traffic Control Signs: 108,141



Existing Signs by Sign Installation Date

(as of January 1, 2012)



DPW Traffic Control Program

February, 2012

MUTCD Minimum Sign Retroreflectivity Standards

- US Department of Transportation Mandated by Congress to Implement Sign and Pavement marking Retroreflectivity Standards
- Final Rule on Maintaining Traffic Sign Retroreflectivity was Issued on December 21, 2007
- Sign Retroreflectivity Rule Modified the 2003 Manual on Uniform Traffic Control Devices as Revision 2 of That Edition, and Became Effective on January 22, 2008

Critical Compliance Dates for Sign Retroreflectivity

- Program to Assess and Manage Signing to Maintain Minimum Requirements to be in Place by January 22, 2012
- Regulatory, Warning and Post Mounted Guide Sign Minimum Retroreflectivity: January 22, 2015
- Street Name and Overhead Guide Sign Minimum Retroreflectivity: January 22, 2018
- FHWA Currently Reviewing Mandatory Compliance Dates for Sign Retroreflectivity

Traffic Sign Retroreflectivity Management Policy

- Policy Effective November 29, 2011
- Outdoor Test Rack Made Functional in 2010 to Monitor Sheeting Performance for Determination of Need for Sign Replacement
- Retroreflectivity of a Sample Population of Existing Signs to be Field Measured to Determine Need for Group Replacement of Signs in Service
- Currently Sign Sheeting Performing Better than that Suggested by FHWA

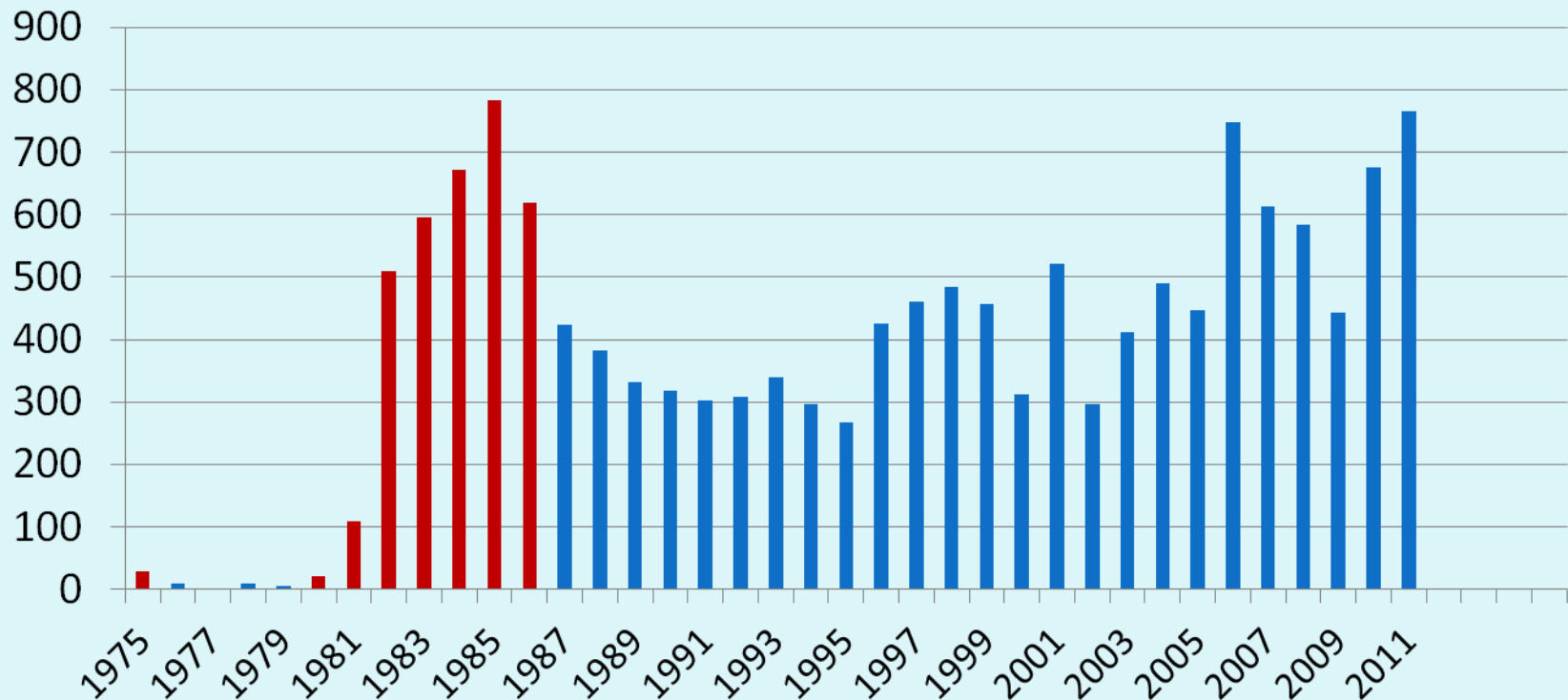
Sign Sheeting Useful Life

- Retroreflectivity Measured on Existing Signs in Service
- Observed Sign Sheeting Life Maintaining Minimum Retroreflectivity
 - Green 20 Years
 - Red 20 Years
 - Yellow 16 Years
 - White 25 Years

Existing White Signs by Sign Installation Date

(as of January 1, 2012)

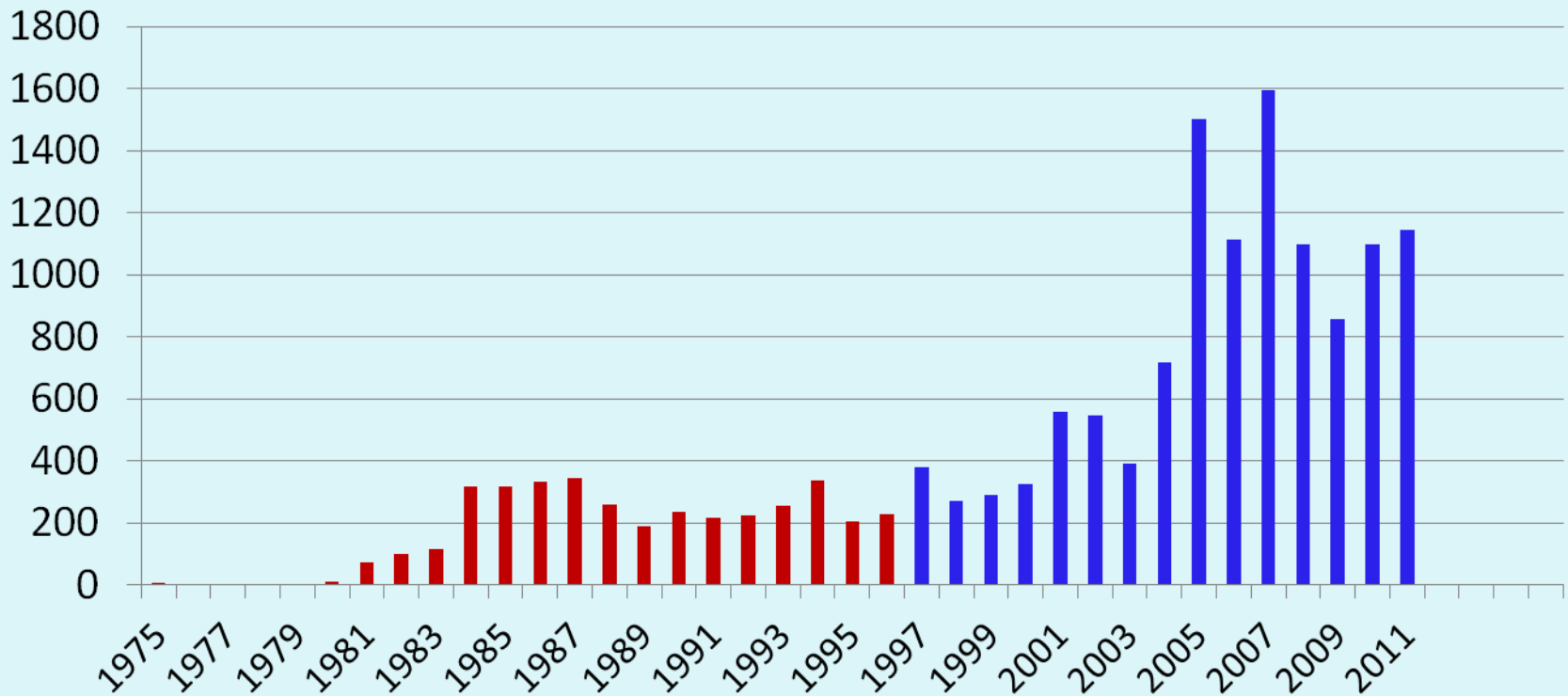
Measured Life – 25 years
3,356 Signs Installed prior to 1987



Existing Yellow Signs by Sign Installation Date

(as of January 1, 2012)

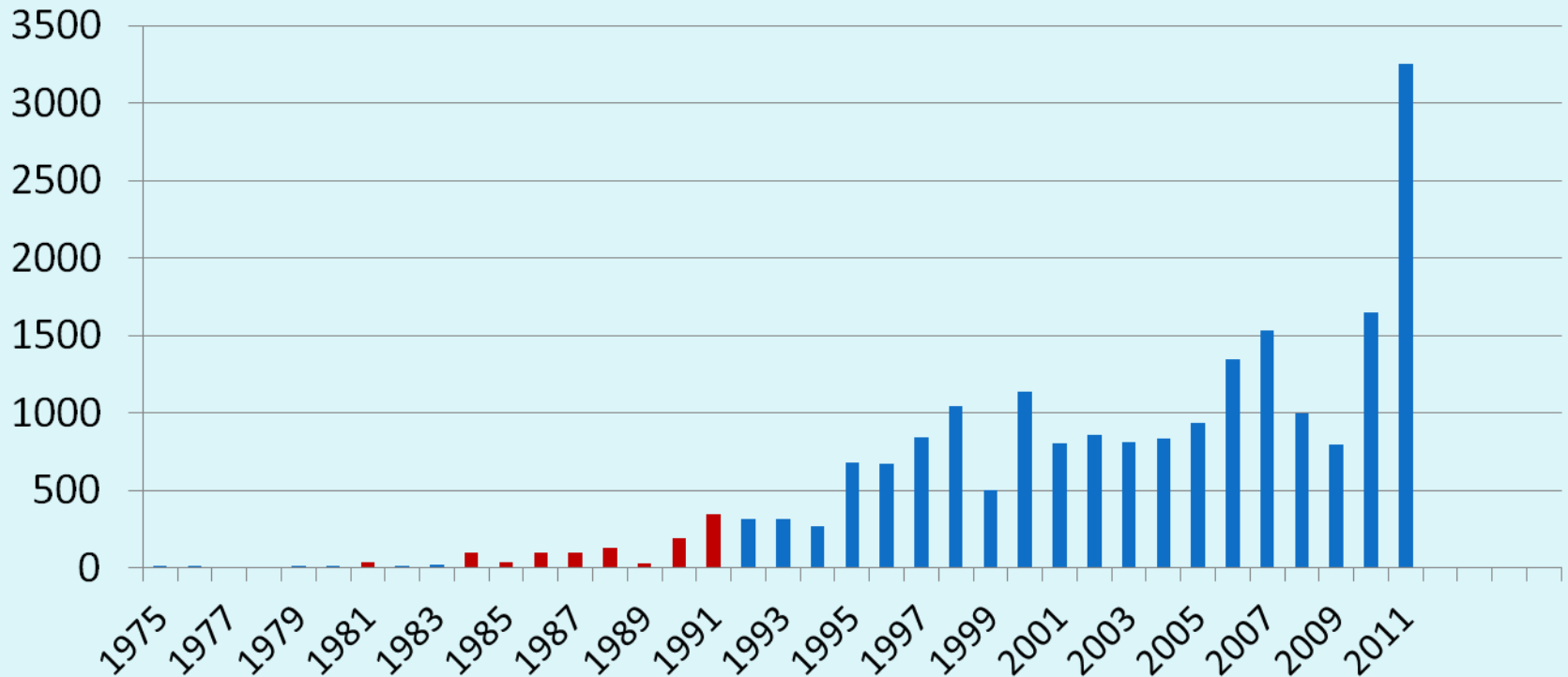
Measured Life – 16 years
3,543 Signs Installed prior to 1996



Existing Red Signs by Sign Installation Date

(as of January 1, 2012)

Measured Life – 20 years
1,127 Signs Installed prior to 1992



DPW Traffic Control Program

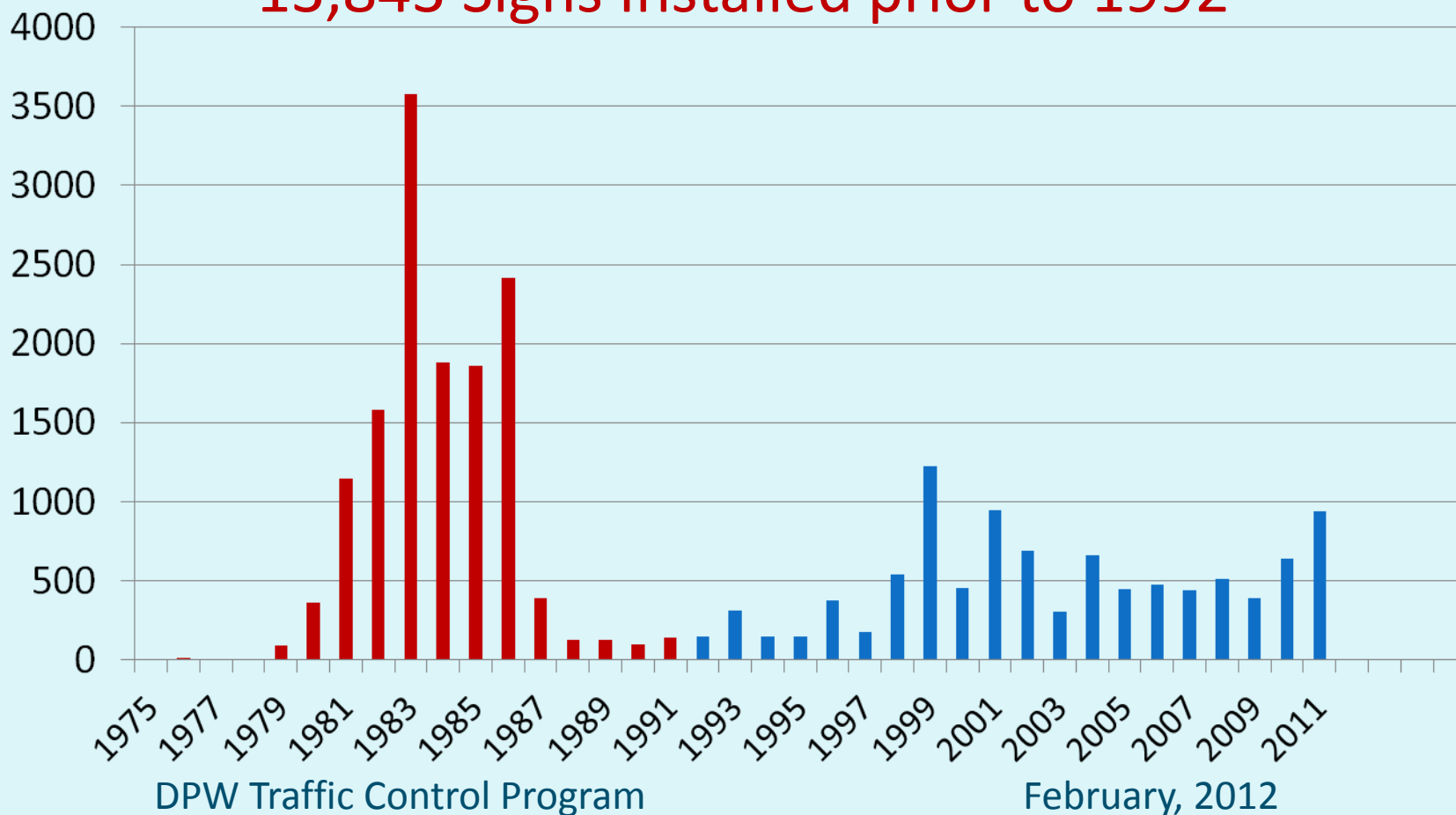
February, 2012

Existing Green Signs by Sign Installation Date

(as of January 1, 2012)

Measured Life – 20 years

13,843 Signs Installed prior to 1992



Wisconsin MUTCD Supplement

- Adopted by the Wisconsin State Legislature in Spring, 2011
- Legislature Previously Enacted Statutory Provision Requiring Double Forfeitures for Speed Violations in School Zones
- New Requirements for Installation of Mandatory “Fines Double” and “End School Zone” Signs

Traffic Signals



Hand symbol
E

VERBALIFT

D.P.W.

26348

TO EAST
794



Traffic Signals

(As of January 1, 2012)

- 754 (+7) Signalized Intersections
 - 752 (+24) Intersections Fully Converted to LED Signal Indications
 - 303 (+28) Intersections with Fire Preemption Active
 - 17 Time-Based Coordinators
 - 125 (+55) Intersections with Pedestrian Countdown Timers
 - 16 (+4) Intersections with Audible Pedestrian Signals
- 13 Flashing Beacons
- 1 Rectangular Rapid Flashing Beacon

Countdown Pedestrian Displays



Countdown Pedestrian Signals

- Display the Amount of Time Remaining in the Flashing Don't Walk Signal Phase Before the Start of Yellow Phase
- Currently Mandated for All Signalized Intersections in the 2009 Manual on Uniform Traffic Control Devices
- Work began in 2011 on a Series of Federal Highway Safety Improvement Program for Group Replacement of All Pedestrian Indications, to be completed by 2014
- 2012 Work to Include Downtown and Near North Side

U.S. Access Board

- Authority to Make Recommendations Establishing Accessibility Requirements Under the Americans With Disabilities Act
- Proposed Rulemaking for Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way Published in the Federal Register on July 26, 2011
- Comments Period Closed February 2, 2012
- Final Rule to be Adopted by FHWA and US Department of Justice

Key Elements of Proposed Accessibility Guidelines Affecting Traffic Control Program

- Audible Pedestrian Signals Required at All Signalized Intersections When Controller Changed or Software Modified
- Signalization Required on All Legs of Multilane Roundabouts, and Multilane Right Turn Lanes
- New Requirements for Pedestrian Clearance Times (Flashing Don't Walks) Regardless of Typical Average Walking Speeds



Pavement Marking Program

Types of Pavement Markings Maintained

(As of January 1, 2012)

- Lane Lines and Center Lines
 - 333 Miles
- Arrows, “Only”, and Bicycle Symbols
 - 310 (+12) Locations
- Bike Lanes (Single and Double Lined)
 - 99 (+48) Miles
- Crosswalks
 - 1,812 (+15) Locations

Average Useful Life of Pavement Markings

- Painted: 1 Year
- Inlaid Plastic: 5 Years
- Epoxy: 3 Years

Key Changes in Pavement Markings

- 2011
 - Wells Street from 6th to Prospect, and 2nd Street from Michigan to Wells Converted (on a Temporary Basis) from One Way to Two Way Operation in September, 2011 Due to the Repair Work on the Wisconsin Avenue Bridge over the Milwaukee River
- 2012
 - Additional 76 Miles of Bike Lanes and 68 Miles of Bicycle “Sharrows” to be Installed in 2012 Under a Federal Congestion Mitigation/Air Quality Grant

Other Budgetary Impacts

Uncollectable Knockdowns

- Applied to the Cost of Equipment Replacement Resulting From Traffic Accidents, Vandalism or Other Damage when Costs Cannot be Recovered from Parties Responsible For Damage
- First Included in Capital Program in 2004
- Total Expenditures of approximately \$165,000 to date for Damages Experienced in 2011