SAFE STREETS NOW

VISIONZERO

ONE TRAFFIC DEATH IS TOO MANY

July 28, 2020

Managing Speed on Hillsborough's High Injury Network

Submitted to:

Hillsborough MPO

Metropolitan Planning for Transportation

Appendix – Supporting Materials

Submitted by:

GPI Engineering | Design | Planning | Construction Management

Annotated Bibliography of Key Speed Management Resources

Table 1. Speed Management Resources - Annotated Bibliography.

Speed Management Resources - Annotated Bibliography		
Resource	**Description**	**Primary Audience**
Highway Safety Manual, 1st edition. American Association of State Highway and Transportation Officials: Washington, D.C., 2010. Available at: highwaysafetymanual.org.	*"The first edition of the* [Highway Safety Manual] *HSM provides the best factual information and tools in a useful form to facilitate roadway planning, design, operations, and maintenance decisions based on precise consideration of their safety consequences. The primary focus of the HSM is the introduction and development of analytical tools for predicting the impact of transportation project and program decisions on road safety.* *AASHTO's Highway Safety Manual webpage serves as the official HSM website where you can find the most up to date information and new developments on the HSM."*	-Engineers -Program Managers
Crash Modification Factors Clearinghouse. Interactive website resource. U.S. Department of Transportation, Federal Highway Administration web page. Available at: http://www.cmfclearinghouse.org/.	*"This site is funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the University of North Carolina Highway Safety Research Center.* This site is continually updated with the latest information on safety or crash effects of countermeasures. "*A crash modification factor (CMF) is a multiplicative factor used to compute the expected number of crashes after implementing a given countermeasure at a specific site. The Crash Modification Factors Clearinghouse houses a Web-based database of CMFs along with supporting documentation to help transportation engineers identify the most appropriate countermeasure for their safety needs. Using this site, you can search to find CMFs"* to treat identified problems.	-Engineers -Program Managers

Speed Management Resources - Annotated Bibliography		
Resource	**Description**	**Primary Audience**
CMFs in Practice. U.S. DOT, Federal Highway Administration web page Available at: http://safety.fhwa.dot.gov/tools/crf/resources/cmfs/.	*"Crash modification factors (CMFs) support a number of safety-related activities in the project development process. The CMFs in Practice Series includes five separate guides that identify opportunities to consider and quantify safety in specific activities, including roadway safety management processes, road safety audits, design decisions and exceptions, development and analysis of alternatives and value engineering. The series also includes reference documents that provide background information on crash modification factors and safety performance functions."*	-Engineers
Speed Concepts: Informational Guide. Washington, D.C.: Office of Safety, Federal Highway Administration, 2009. Available at: http://safety.fhwa.dot.gov/speedmgt/ref_mats/fhwasa10001/ .	*"The objectives of this guide are to:* *-Define common speed-related terminology so that the guide's contents can be clearly conveyed.* *- Explain the differences between designated design speed, inferred design speed, operating speed, and posted speed limits.* *- Illustrate perceptions and research conclusions related to the effects of speed.* *-Document speed-based technical processes.* *- Summarize State and local government agency roles and actions related to traffic speed.* *- Highlight speed management and mitigation measures."*	-Engineers -Enforcement -Others
Automated Enforcement for Speeding and Red Light Running. NCHRP Report 729, Washington, D.C.: Transportation Research Board, 2012. Available at: http://www.trb.org/main/blurbs/167757.aspx.	*"TRB's* [Transportation Research Board] *National Cooperative Highway Research Program (NCHRP) Report 729: Automated Enforcement for Speeding and Red Light Running includes guidelines designed to help transportation agencies start-up and operate automated enforcement programs to improve highway safety by reducing speeding and red light running."*	-Enforcement -Program Managers

Speed Management Resources - Annotated Bibliography		
Resource	**Description**	**Primary Audience**
Engineering Countermeasures for Reducing Speeds: A Desktop Reference of Potential Effectiveness in Reducing Speed. FHWA Office of Safety website tool, 2014. Available at: http://safety.fhwa.dot.gov/speedmgt/ref_mats/eng_count/2014/reducing_speed.cfm.	*"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."*	-Engineers -Others
Engineering Speed Management Countermeasures: A Desktop Reference of Potential Effectiveness in Reducing Crashes. FHWA Office of Safety website tool, 2014. Available at: http://safety.fhwa.dot.gov/speedmgt/ref_mats/eng_count/2014/eng_ctm_crsh_14.pdf	*"This chart summarizes studies about the effectiveness of engineering countermeasures. Studies where an increase in crashes were reported are also shown since this information is also relevant in selection of countermeasures."*	-Engineers -Others

Speed Management Resources - Annotated Bibliography		
Resource	**Description**	**Primary Audience**
Traffic Calming: State of the Practice. Prepared for the U.S. Department of Transportation, Federal Highway Administration, by Institute of Transportation Engineers, 1999. Available at: http://www.ite.org/traffic/tcstate.asp - tcsop.	*"Traffic Calming: State of the Practice is an Informational Report of the Institute of Transportation Engineers (ITE) and the Federal Highway Administration (FHWA). The information in this document has been obtained from the research and experiences of transportation engineering and planning professionals. The report was prepared by ITE on behalf of FHWA for informational purposes only and does not include recommendations on the best course of action or the preferred application of the data."*	-Engineers
FHWA Guidance Memorandum on Consideration and Implementation of Proven Safety Countermeasures. Date: July 10, 2008 Available at: http://safety.fhwa.dot.gov/policy/memo071008/.	Considerations and Implementation of Proven Safety Countermeasures.	-All
FHWA. Speed Management Safety. Available at: http://safety.fhwa.dot.gov/speedmgt/.	FHWA Speed Management webpages and resources.	-Engineers

Speed Management Resources - Annotated Bibliography		
Resource	**Description**	**Primary Audience**
***Methods and Practices for Setting Speed Limits: An Informational Report*.** Washington, D.C.: Federal Highway Administration, Report no. FHWA-SA-12-004. Available at: http://safety.fhwa.dot.gov/speedmgt/ref_mats/fhwasa12004/.	*"This informational report describes four primary practices and methodologies that are used in establishing speed limits (engineering approach, expert systems, optimization, and injury minimization). It also reviews the basic legalities of speed limits and presents several case studies for setting speed limits on a variety of roads."*	-Engineers -Program Managers -Policy-Makers
Community Speed Reduction and Public Health. Informational resources and case studies. Available at: http://hria.org/resources/reports/community-speed-reduction/2013-resources-speed-reduction.html.	*"Motor vehicle crashes are the leading cause of unintentional injury deaths in the United States each year. In 2011, vehicle speed played a role in nearly one in three crash deaths, about ninety percent of which took place on non-Interstate roads. High speeds are especially dangerous for pedestrians and cyclists, who are disproportionately threatened by even small increases in traffic speed, when collisions occur. Poor road design, lack of enforcement, and speed limits that are set too high can encourage high speeds. Community-wide speed reduction strategies intervene in the built environment to slow down motor vehicles and are systematically applied within a defined geographic area."* - See more at: http://hria.org/resources/reports/community-speed-reduction/2013-resources-speed-reduction.html - sthash.EqjnT2WZ.dpuf.	-Public Health / Injury Prevention -Policymakers

Speed Management Resources - Annotated Bibliography		
Resource	**Description**	**Primary Audience**
Interactive Highway Safety Design Model (IHSDM). Website with description and link to the IHSDM modeling tool. Available at: http://www.fhwa.dot.gov/research/tfhrc/projects/safety/comprehensive/ihsdm/.	*"IHSDM development is coordinated with two related initiatives: the Highway Safety Manual, developed by the Transportation Research Board and published by AASHTO; and the SafetyAnalyst, developed by FHWA and now available as AASHTOWare.* *The Interactive Highway Safety Design Model (IHSDM) is a suite of software analysis tools for evaluating safety and operational effects of geometric design decisions on highways. IHSDM is a decision-support tool. It provides estimates of a highway design's expected safety and operational performance and checks existing or proposed highway designs against relevant design policy values. IHSDM results support decision making in the highway design process. Intended users include highway project managers, designers, and traffic and safety reviewers in State and local highway agencies and engineering consulting firms.* *IHSDM currently includes six evaluation modules (Crash Prediction, Design Consistency, Intersection Review, Policy Review, Traffic Analysis, and Driver/Vehicle)."*	-Engineers
Managing Speed: Review of current practice for setting and enforcing speed limits. Transportation Research Board, Special Report 254, National Research Council. Washington, D.C., National Academy Press, 1998. Available: http://www.trb.org/Main/Blurbs/152251.aspx.	*"Managing Speed: Review of Current Practices for Setting and Enforcing Speed Limits reviews practices for setting and enforcing speed limits on all types of roads and provides guidance to state and local governments on appropriate methods of setting speed limits and related enforcement strategies. Following an executive summary, the report is presented in six chapters and five appendices."*	-Engineers -Program Managers -Enforcement

Speed Management Resources - Annotated Bibliography		
Resource	**Description**	**Primary Audience**
Adding Power to Our Voices: A Framing Guide for Communicating about Injury. National Center for Injury Prevention and Control: Atlanta, GA: US Department of health and Human Services, Centers for Disease Control and Prevention; 2008 (revised March 2010). Available: http://www.cdc.gov/injury/framing.	*"This guide is designed to help organizations involved in injury and violence prevention and response speak with a consistent voice. The framing guide is built on the belief that the collective voice of many injury and violence professionals across several disciplines is much louder than that of an individual or single organization.* *This guide incorporates framing theory, message development techniques and vehicles for explaining important public health statistics. The information and tools provided in this Guide can be used to build messages that can be included in press releases, speeches, annual reports, and research articles, to help health professionals better communicate with their audiences."*	-Communications Specialists
Roundabouts: An informational guide, Second edition. NCHRP Report 672, Transportation Research Board: Washington, D.C., 2010. Available: http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_672.pdf.	*"This report updates the FHWA's Roundabouts: An Informational Guide based on experience gained in the United States since that guide was published in 2000. The report addresses the planning, design, construction, maintenance, and operation of roundabouts. It also includes information that will be useful in explaining to the public the trade-offs associated with roundabouts."*	-Engineers

Speed Management Resources - Annotated Bibliography		
Resource	**Description**	**Primary Audience**
Guidance for Implementation of the AASHTO Strategic Highway Safety Plan. Volume 21: Safety Data and Analysis in Developing Emphasis Area Plans. Washington, DC: NCHRP, Transportation Research Board, 2008. Available: onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_rpt_500v21.pdf.	*"This guide specifically addresses highway safety data, an emphasis area under the management category in AASHTO's SHAP, and was developed to aid highway safety analysts in using the other implementation guides to make decisions about how to appropriately allocate safety funds to get the best results. Section I introduces a three-stage process for identifying a target emphasis area, setting an appropriate injury (and fatality) reduction goal, and defining the treatments that will allow the jurisdiction to reach that goal." Section II describes the types of data necessary; Section III lays out the details of the three-stage process; and the remaining sections provide a detailed description of the specific applications of the process and procedures for roadway segments, junctions, special road users, illegal driver actions, unsafe driver actions, work zones, and EMS services."*	-Program Managers -Data Analysts
Guidance for Implementation of the AASHTO Strategic Highway Safety Plan. Volume 23: A Guide for Reducing Speeding-Related Crashes. Washington, DC: NCHRP, Transportation Research Board, 2009. Available: onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_500v23.pdf.	Note: This guide, one of a series of 23 such guides in the NCHRP Report 500 series, describes essential processes and a speed management program planning framework, as well as specific strategies and countermeasures, to assist with meeting Strategic Highway Safety Plan objectives. *"One of the hallmarks of the AASHTO Strategic Highway Safety Plan process is to approach safety problems in a comprehensive manner. The range of strategies available in the guides cover various aspects of the road user, the highway, the vehicle, the environment, and the management system. The guides strongly encourage the user to develop a program to tackle a particular emphasis area from each of these perspectives in a coordinated manner."*	-All Road Safety Practitioners -Program Managers

Speed Management Resources - Annotated Bibliography		
Resource	**Description**	**Primary Audience**
Countermeasures that Work, 7th ed. Department of Transportation, National Highway Traffic Safety Administration, 2013. Available at: www.nhtsa.gov/staticfiles/nti/pdf/811727.pdf.	*"The National Highway Traffic Safety Administration has released the latest edition of its report that explores major highway safety strategies and countermeasures that are relevant to State Highway Safety Offices; summarizes their use, effectiveness, costs, and implementation time; and provides references to safety research summaries and individual studies."*	-Enforcement -Educators -Communications Specialists
Uniform Guidelines for State Highway Safety Programs. Highway Safety Program Guidelines No. 19. National Highway Traffic Safety Administration, 2006. Available: http://www.nhtsa.gov/nhtsa/whatsup/tea21/tea21programs/402guide.html#g19.	The Speed Control Guidelines (no. 19) is one of 21 sets of uniform program guidelines for state highway safety programs developed for TEA21. *"Introduction: Each State, in cooperation with its political subdivisions, should have, as part of a comprehensive highway safety program, an effective speed control program that encourages its citizens to voluntarily comply with speed limits. The program should stress systematic and rational establishment of speed limits, a law enforcement commitment to controlling speed on all public roads, a commitment to utilize both traditional methods and state-of-the art equipment in setting and enforcing speed limits, and a strong public information and education program aimed at increasing driver compliance with speed limits."*	-Program Managers -Enforcement -Communications Specialists

Speed Management Resources - Annotated Bibliography		
Resource	**Description**	**Primary Audience**
Effectiveness of Behavioral Highway Safety Countermeasures, NCHRP Report 622. Washington, DC: Transportation Research Board, 2008. Available: http://www.nap.edu/openbook.php?record_id=14195.	*"The goal of this project is to assist states in selecting programs, projects, and activities that have the greatest potential for the reduction of highway death and injury. The specific objectives are as follows: Produce a manual for application of behavioral highway safety countermeasures and develop a frame-work and guidance for estimating the costs and benefits of emerging, experimental, untried, or unproven behavioral highway safety countermeasures."*	-Enforcement -Communications Specialists -Program Managers

Speed Management Resources - Annotated Bibliography		
Resource	**Description**	**Primary Audience**
Road Safety Audit resources on FHWA website: http://safety.fhwa.dot.gov/rsa/. ***FHWA Road Safety Audit Guidelines*.** Available: http://safety.fhwa.dot.gov/rsa/guidelines/. ***Pedestrian Road Safety Audit Guidelines and Prompt Lists.*** Highway Administration. Available: http://safety.fhwa.dot.gov/ped_bike/tools_solve/ped_rsa/. ***Bicycle Road Safety Audit Guidelines and Prompt Lists.*** Available: http://safety.fhwa.dot.gov/ped_bike/tools_solve/fhwasa12018/.	*"A Road Safety Audit (RSA) is the formal safety performance examination of an existing or future road or intersection by an independent, multidisciplinary team. It qualitatively estimates and reports on potential road safety issues and identifies opportunities for improvements in safety for all road users. The FHWA works with State and local jurisdictions and Tribal Governments to integrate RSAs into the project development process for new roads and intersections, and also encourages RSAs on existing roads and intersections…* *The aim of an RSA is to answer the following questions:* *-What elements of the road may present a safety concern: to what extent, to which road users, and under what circumstances?* *-What opportunities exist to eliminate or mitigate identified safety concerns?* *Public agencies with a desire to improve the overall safety performance of roadways under their jurisdiction should be excited about the concept of RSAs. Road safety audits can be used in any phase of project development from planning and preliminary engineering, design and construction. RSAs can also be used on any sized project from minor intersection and roadway retrofits to mega-projects."* Note: The pedestrian and bicycle road safety audit guidelines provide supplemental information focusing on safety and roadway issues particularly affecting those users.	-Engineers -Planners -Law Enforcement -Other Road Safety Stakeholders

Speed Management Resources - Annotated Bibliography		
Resource	**Description**	**Primary Audience**
Safety Analyst. AASHTOware. Network screening analysis tool. Available: http://www.safetyanalyst.org/.	*"Synopsis: SafetyAnalyst incorporates state-of-the-art safety management approaches into computerized analytical tools for guiding the decision-making process to identify safety improvement needs and develop a system wide program of site-specific improvement projects. SafetyAnalyst has a strong basis in cost-effectiveness analysis; thus, SafetyAnalyst has an important role in ensuring that highway agencies get the greatest possible safety benefit from each dollar spent in the name of safety. SafetyAnalyst was developed as a cooperative effort by FHWA and participating state and local agencies. AASHTO manages distribution, technical support, maintenance, and enhancement of SafetyAnalyst as a licensed AASHTOWare product."*	-Engineers
Speed Management: Road Safety Manual for Decision-makers and Practitioners. Geneva: Global Road Safety Partnership, 2008. Available at: http://www.who.int/roadsafety/projects/manuals/speed_manual/en/.	*"This speed management manual proposes simple, effective and low-cost solutions to excessive and inappropriate speed that can be implemented on a national or local level. It targets governments, non-governmental organizations and road safety practitioners, particularly those in low- and middle-income countries. The manual is based on a modular structure that provides evidence, examples, case studies and practical steps on how to manage vehicle speed."*	-All Safety Stakeholders -Program Managers -Policymakers
U.S. DOT, NHTSA Branding website. Accessible at: http://www.trafficsafetymarketing.gov/TOOLS/Branding.	General traffic safety marketing guidance.	-Communications Specialists

Speed Management Resources - Annotated Bibliography		
Resource	**Description**	**Primary Audience**
Speed Enforcement Camera Systems: Operational Guidelines. Washington, DC: U.S. Department of Transportation, National Highway Traffic Safety Administration and Federal Highway Administration, 2008. Available at: http://ntl.bts.gov/lib/30000/30100/30166/810916.pdf.	*"The ASE guidelines are intended to serve program managers, administrators, law enforcement, traffic engineers, program evaluators, and other individuals responsible for the strategic vision and daily operations of the program. The guidelines are written from a U.S. perspective and emphasize U.S. contexts and best practices. However, they are also drawn from the experiences of exemplary programs internationally. Though international differences in law, history, and culture might influence best practices for ASE, the majority of these guidelines are relevant to ASE programs worldwide."*	-Enforcement -Engineering -Program Managers
USLimits2. FHWA. A Tool to Aid Practitioners in Determining Appropriate Speed Limit Recommendations. Tool available at: http://safety.fhwa.dot.gov/uslimits/	*"USLIMITS is a web based tool designed to help practitioners set reasonable, safe, and consistent speed limits for specific segments of roads. USLIMITS is applicable to all types of roads ranging from rural local roads and residential streets to urban freeways.* *User-friendly, logical, and objective, USLIMITS2 is of particular benefit to local communities and agencies without ready access to engineers experienced in conducting speed studies for setting appropriate speed limits. For experienced engineers, USLIMITS2 can provide an objective second opinion and increase confidence in speed limit setting decisions."* A related report documenting research for USLimits, 1st ed.: *Expert System for Recommending Speed Limits in Speed Zones: Final Report.* National Cooperative Highway Research Program, Transportation Research Board. Available at: onlinepubs.trb.org/onlinepubs/trbnet/acl/NCHRP%200367_FinalReport.pdf.	-Engineers -Others responsible for setting speed limits

VISIONZERO HILLSBOROUGH

MANAGING SPEED on Hillsborough's High Injury Network

Stakeholder Kick-Off Meeting
May 24, 2019

Presented by:

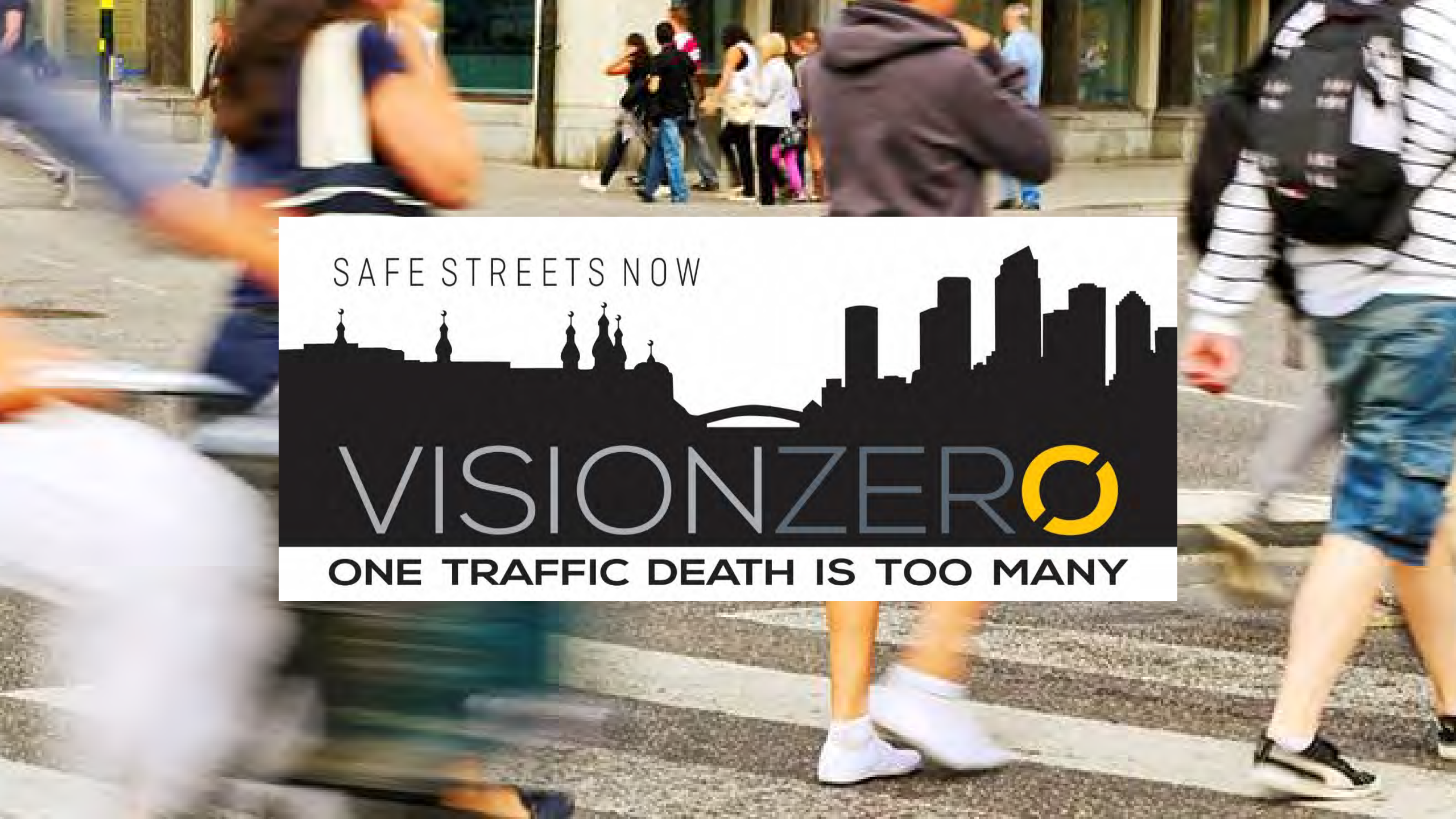
Gena Torres — Hillsborough MPO Metropolitan Planning for Transportation

Paula Flores — GPI

Alex Henry — FDOT

- Welcome & Introduction
- Study Objectives
- FDOT Speed Management – Pilot Projects
- Examples & Best Practices
- Stakeholder Input

Image Source:Tampa Bay Online


SAFE STREETS NOW
VISIONZERO
ONE TRAFFIC DEATH IS TOO MANY

Formed a coalition to develop the Action Plan

…and growing

Vision Zero Action Plan

- Future is not like the past
- Consistent & Fair
- Paint Saves Lives
- One message, many voices

THE FUTURE WILL NOT BE LIKE THE PAST

Goal 1: Update polices, standards and procedures to foster a culture of safety in planning and design of the transportation system

Goal 2: Create a safe multimodal transportation system through good design, lighting, and connected facilities

VISIONZERO

GOAL 1 – Future will not be like the past

Short-term action

- Enhance requirements in local land development codes

Mid-term actions

- Enhance requirements in technical manuals
- Revisit and update maintenance of traffic policies
- Provide professional training opportunities

Long-term action

- Develop context classifications and target speeds within Vision Zero corridors, consistent with FDOT Complete Streets guidelines.

VISIONZERO

- Welcome & Introduction
- Study Objectives
- FDOT Speed Management – Pilot Projects
- Examples & Best Practices
- Stakeholder Input

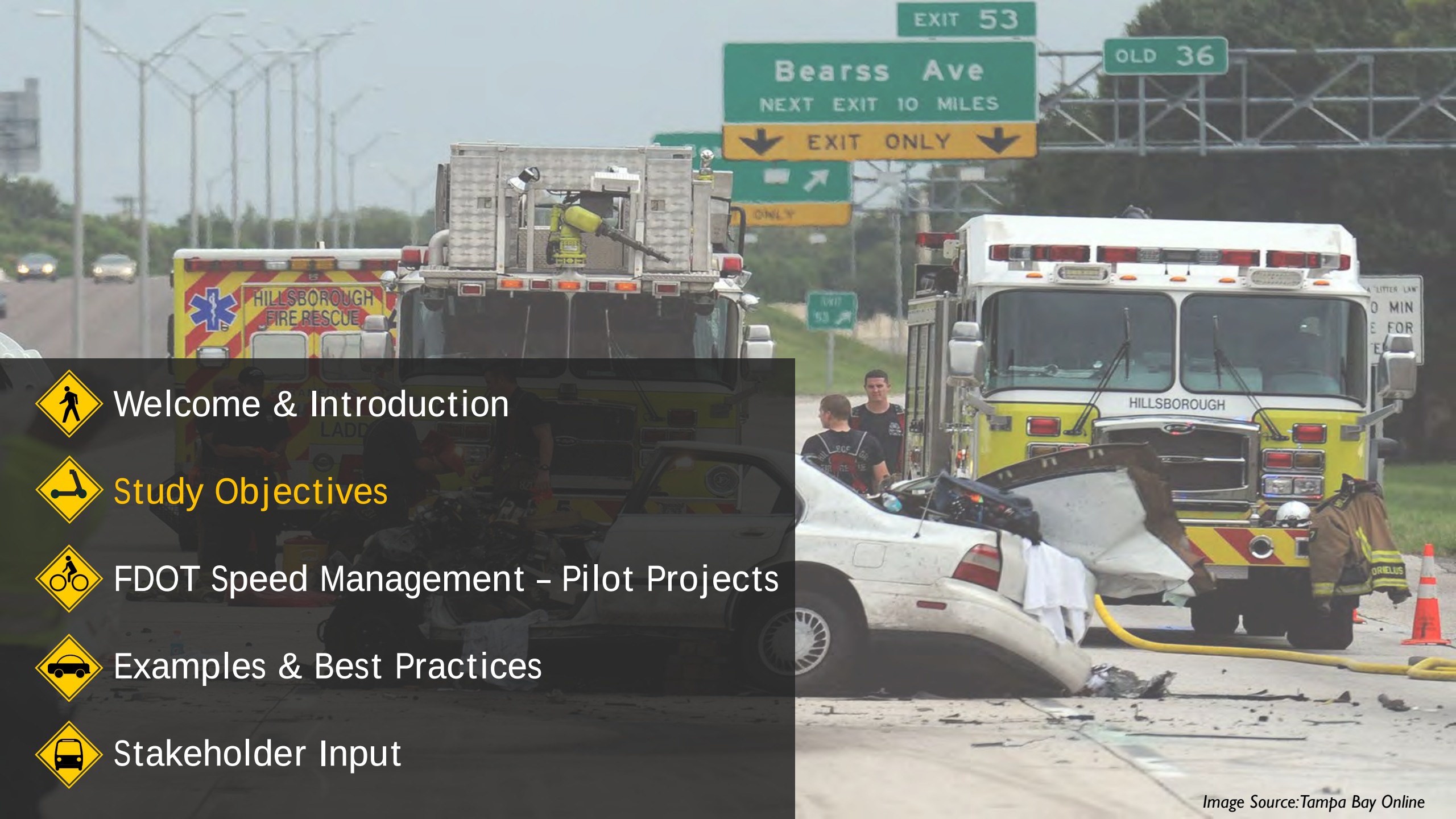


Image Source:Tampa Bay Online

WHY IS IT IMPORTANT?

- Florida - most dangerous state for pedestrians and bicyclists in recent history
- Nations Top 10 metro areas with highest pedestrian fatalities
  - Cape Coral
  - Palm Bay
  - Orlando
  - Jacksonville
  - Daytona Beach
  - Lakeland
  - Tampa/St. Petersburg
  - Sarasota/Bradenton

On average, a person is dying on Hillsborough streets every other day!

BABY, 10 MONTHS, DIES IN I-75 CRASH

TBadmin | October 8, 2018

Two other children, ages 3 and 8, suffered m the single-vehicle crash. FHP troopers said children were in car seats or wearing seat b

HILLSBOROUGH COUNTY – A 10-month-old b when thrown from a car during a crash on I-75, *Highway Patrol* said.

Two other children, ages 3 and 8, were taken to Hospital with minor injuries. The genders of thes available.FHP troopers said none of the childre or otherwise restrained.

The children's grandmother, Lorraine Sailor, 50, was driving the car, was not injured.

The crash happened about 3:11 p.m. on northbo Fletcher Avenue at about the 266 mile marker i County.

Troopers said Sailor was driving a 2008 Hyundai I-75 in the outside lane when she veered to the left to avoid debris in the roadway. Sailor lost control of the Hyundai, which traveled to the center median and collided with the g collision, the car rotated and came to a final rest.

As it rotated, the baby and the 6 year old were thrown from the car and the 3 year old was injured.

Florida Highway Patrol | FHP | I-75 Crash | Tampabay News

#FloridaHighwayPatrol #FHP #I75Crash #TampabayNews

BICYCLIST DIES IN HIT AND RUN CRASH

TBadmin | September 24, 2018

Alcohol is suspected as a factor in the

HILLSBOROUGH COUNTY – A Riverview (Sept. 23) when the bicycle he was riding fled the scene, the *Hillsborough County Sh*

John Dilgard, 73, of Riverview, died at the

The crash happened about 12:42 a.m. on Hillsborough County.

Mr. Dilgard was riding a yellow Duna mou on Kings Avenue when he was struck from citizens called 911 to report a person dow near the intersection of Calm Drive.

Deputies and paramedics from Hillsborou answered the calls and found Mr. Dilgard. Alcohol is suspected to have contributed t

Deputies said a potential suspect and vehi and charges are pending.

Hillsborough Sheriff | Hit and Run Crash | News

#HillsboroughSheriff #HitandRunCrash #T #TampabayNews

RIVERVIEW MAN DIES IN I-75 CRASH

TBadmin | October 9, 2018

The pickup truck he was d FHP troopers.

HILLSBOROUGH COUNTY morning (Oct. 9) in a single-v *Highway Patrol* said.

Thomas Miller IV, 43, of Rive wearing a seat belt. His pass of Riverview, was taken to T injuries.

The crash happened about approaching Fletcher Avenue

Troopers said Mr. Miller was I-75 when, for unknown reas truck traveled onto the shoul overturned, throwing Mr. Mill

Florida Highway Patrol | I-75

News

#FloridaHighwayPatrol #I75Crash #ThomasMillerIV #TampabayNews

BRUCE B. DOWNS CRASH KILLS TWO

TBadmin | October 11, 2018

The six-vehicle crash closed the north Downs Boulevard for several hours.

TAMPA – Two people are dead and one a six-vehicle crash Wednesday (Oct. 10) Boulevard, the *Tampa Police Departmen*

Mohamed Saud Hanidan Su Al Toobi, 1 driving an Infiniti G37, died at a local hos after the crash. His front-seat passenger passenger's name was withheld pending The back seat passenger was taken to t threatening injuries and was listed in sta

The driver of one of the other vehicles w with non-threatening injuries and is in sta from the other cars received minor injurie available.

The crash happened about 5:27 p.m. at Boulevard.

Police said the Infiniti was headed south on Bruce B Downs from Amberly Drive. For reasons that are still under investigation, the Infiniti veered and struck the center cu over the median into oncoming northbound traffic.

When the Infiniti entered the northbound lanes, it clipped the back end of another vehicle. The Infiniti continued into oncoming traffic where it collided with two other vehi damage. Three other vehicles were also damaged because of secondary incidents caused by the crash. Six vehicles were involved, police said.

ONE DEAD IN FIERY CRASH AT I-75 AND FOWLER AVENUE

TBadmin | October 3, 2018

The first crash was on I-75. That collision caused the tracto trailer to fall onto Fowler where a portion landed on a car then caught fire, the Florida Highway Patrol said.

HILLSBOROUGH COUNTY – One man died in a five-vehicle crash that closed I-75 for several hours and was expected to cl Fowler Avenue overnight, the *Florida Highway Patrol* said.

Daniel Lee Allmond, 31, of Spring Hill, died at the scene.

Mr. Allmond was an employee of the Florida Department of Highway Safety and Motor Vehicles, which released this statement: "Through his work with the department, Daniel made tremendous impact helping to promote highway safety across th state of Florida, undoubtedly saving lives. We mourn his tragic loss and our prayers and support will remain with his family and friends during this time of grief."

Jennifer Louise Boynton, 40, of Belleview, one of the drivers in t five-vehicle crash, was taken to St. Joseph's Hospital with minor injuries. Scott Elring, 50, of Belleview, a passenger in Boynton's

Toyota, was also taken to St. Joseph's although he had no reported injuries ement.

Angel Aldana Catalan, 63, of Port St. Lucie, another driver, suffered minor injuries but was not taken to a hospital.

Frank L. Harold, 62, and Jennie M. Harold, 63, of Bradenton, the driver and passenger in a Hyundai, were taken to Tampa General Hospital with minor injuries.

Patricia P. Folsom, 69, of Tampa, the driver of a Toyota SUV, was not injured.

The crash happened about 4:08 p.m. Tuesday (Oct. 2) at the I-75-Fowler Avenue interchange in Hillsborough County.

Troopers said Boynton, who was driving a 2004 Toyota Sequoia east on Fowler, turned onto the northbound entrance ramp to I-75. Boynton lost control of the Toyota and traveled across the

BRANDON MOTORCYCLIST DIES IN CRASH

TBadmin | October 2, 2018

Florida Highway Patrol

HILLSBOROUGH COU Monday (Oct. 1) in a cra *Highway Patrol* said.

Ryan James Simpson, 3 Mendoza, 41, of Tampa.

The crash happened abo Hillsborough Avenue ar

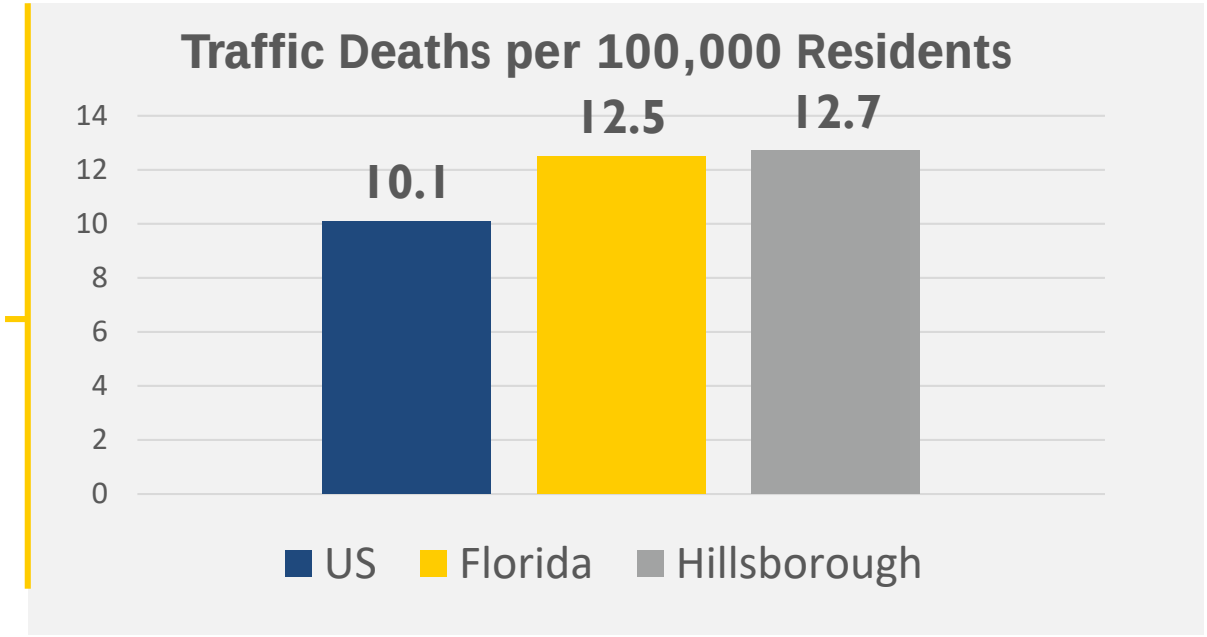
Troopers said Mr. Simps west on Hillsborough Av passing other vehicles th

The motorcycle ran the r Nissan pickup truck that trying to turn from Orient

Florida Highway Patrol | Tampabay News

#FloridaHighwayPatrol #RyanJamesSimpson #MotorcycleCrash #TampabayNews

TRAFFIC DEATHS



SAFE STREETS NOW

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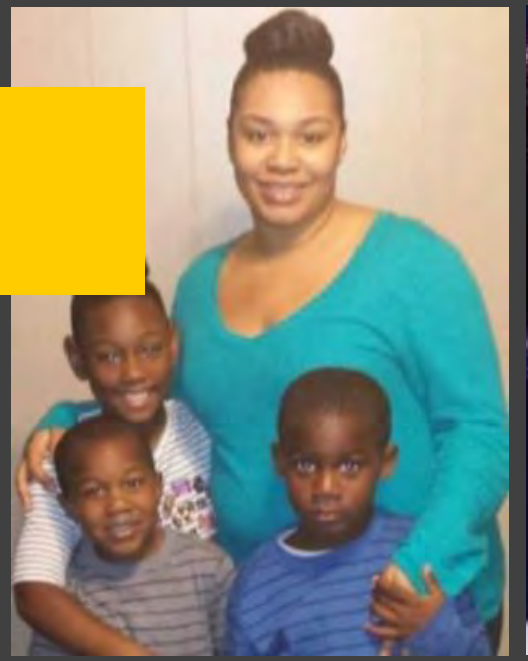
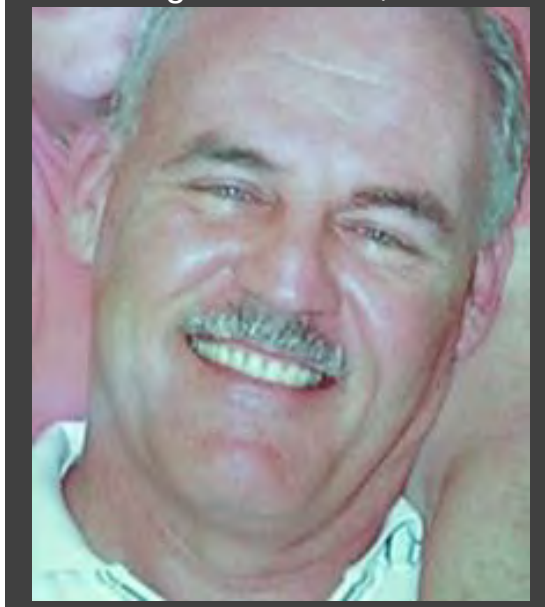
ONE TRAFFIC DEATH IS TOO MANY



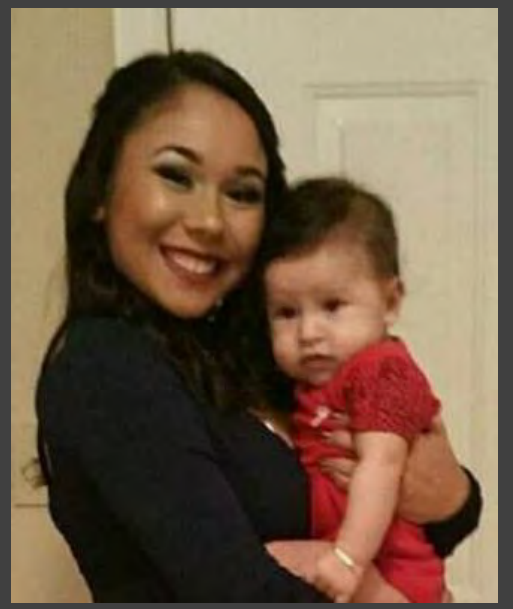
LaMour Welch, 29

Ernest Kelly, 12

Eugene Fischer, 65



Emily Lopez, 17



WHAT DOES THE DATA TELL US?

Image Source:Tampa Bay Online

For every 1 fatal crash…

8 incapacitating injury crashes occur.

WHAT DOES THE DATA TELL US?

FATAL CRASHES

- 75% occur on roads with ***posted speeds +40 mph***
- 75% of fatal & serious injury crashes occur on ***one-third of our roads***
- 33% of fatal crashes involve ***aggressive driving***
- Pedestrian crashes - one-third result in death or incapacitation

Tampa Bay Times

tampabay.com

SATURDAY, JANUARY 9, 2

...nty traffic

Record fatal year: 51 pedestrians die

292,00 new jo keep U perkin

The hiring gain signal staying p some analysts s

WASHINGTON — economy is motori despite slowing glo that caused upheaval cial markets around this week.

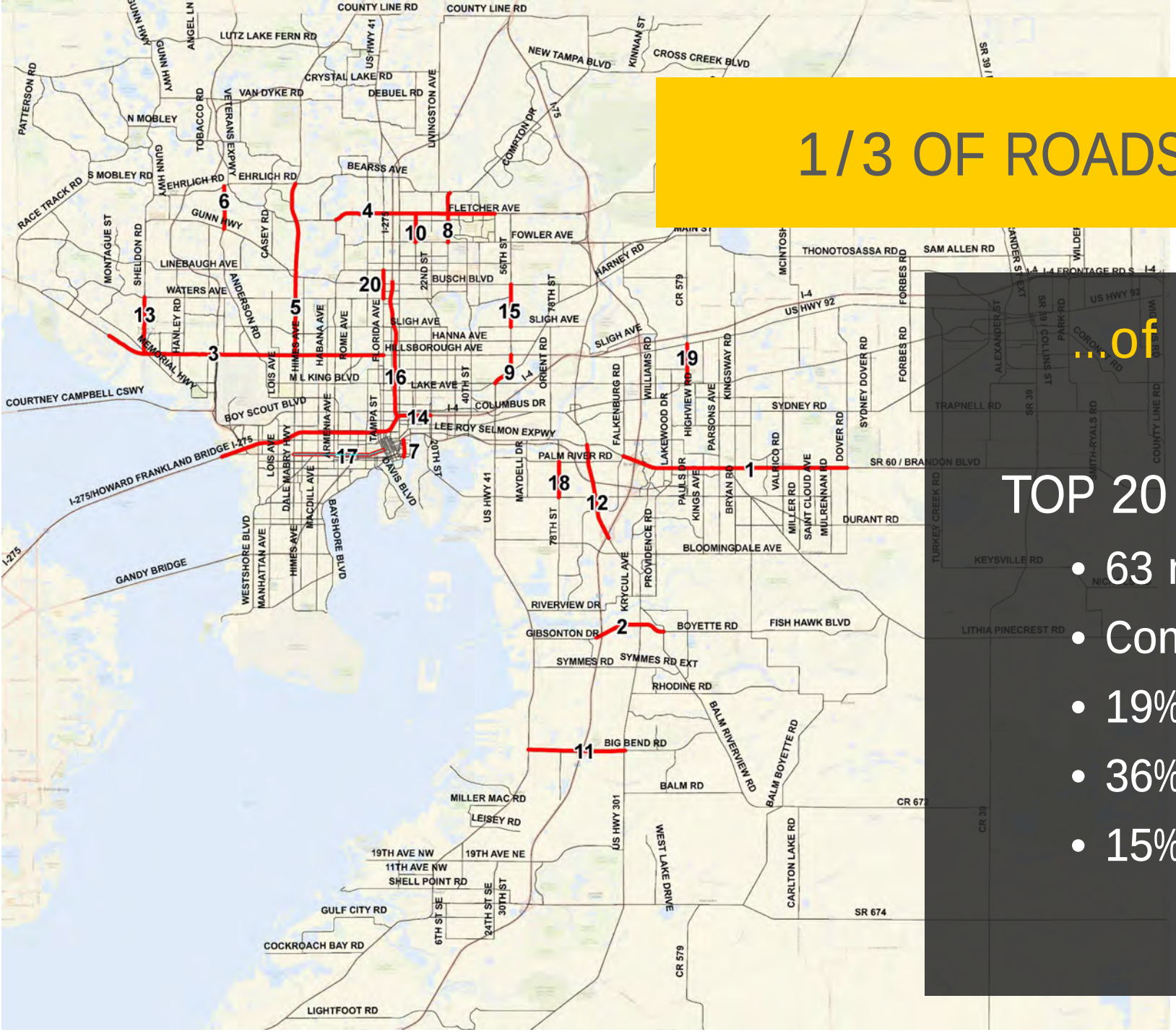
Employers added 292,000 jobs last mon unemployment rate a 4.6 percent, the Labo ment said Fri- day. Job gains in the Octo- ber-December quarter aver- aged 284,000, the best three- months since since last Janu- ary.

The strong hiring under- scores the resil- ience of the United States at a ti global growth and fin mtill. Healthy consum ing, modest gains in h struction and an upti ernment spending, st ort drags from overse ster growth this year, e said.

The report "immedi to rest a lot of the wo the U.S. economy w undone due to the in global headwinds com

The 2015 deaths made Hillsborough County the most deadly place to walk in Tampa Bay.

A pedestrian crosses E Hillsborough Avenue at

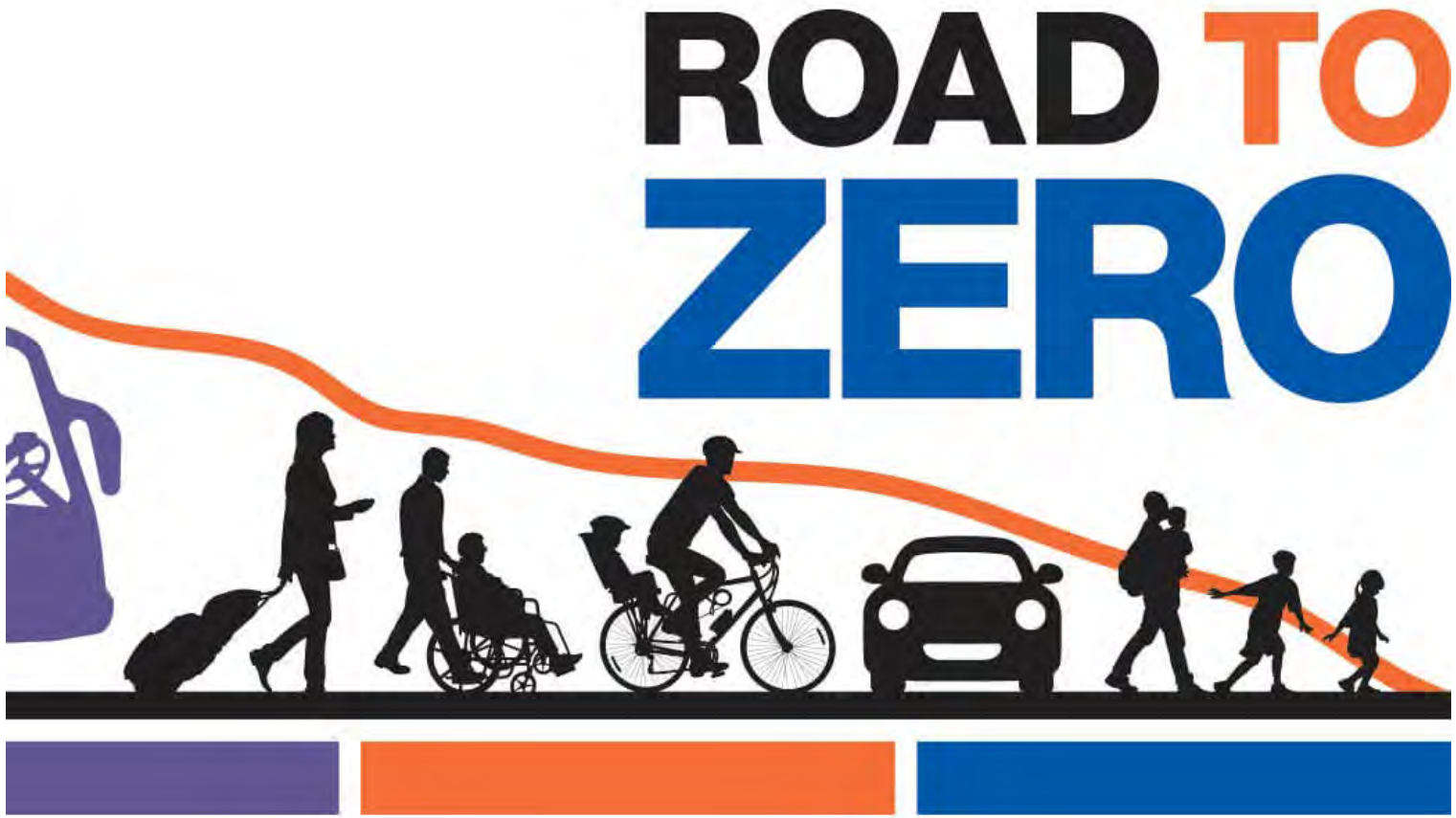


1/3 OF ROADS ACCOUNT FOR 3/4

...of severe crashes

TOP 20 CORRIDORS

- 63 miles of roadway
- Comprise 4% of our roads
- 19% severe crashes in five years
- 36% of crashes - Aggressive driving
- 15% of crashes - Ped/Bike crashes



"…incremental progress is no longer acceptable given the increasingly rapid advances in technology and the wealth of knowledge about how to prevent crashes…

with the right *policies*, *technologies*, and *strategy*, we could *prevent all roadway deaths*"

USDOT, National Safety Council

MANAGING SPEED

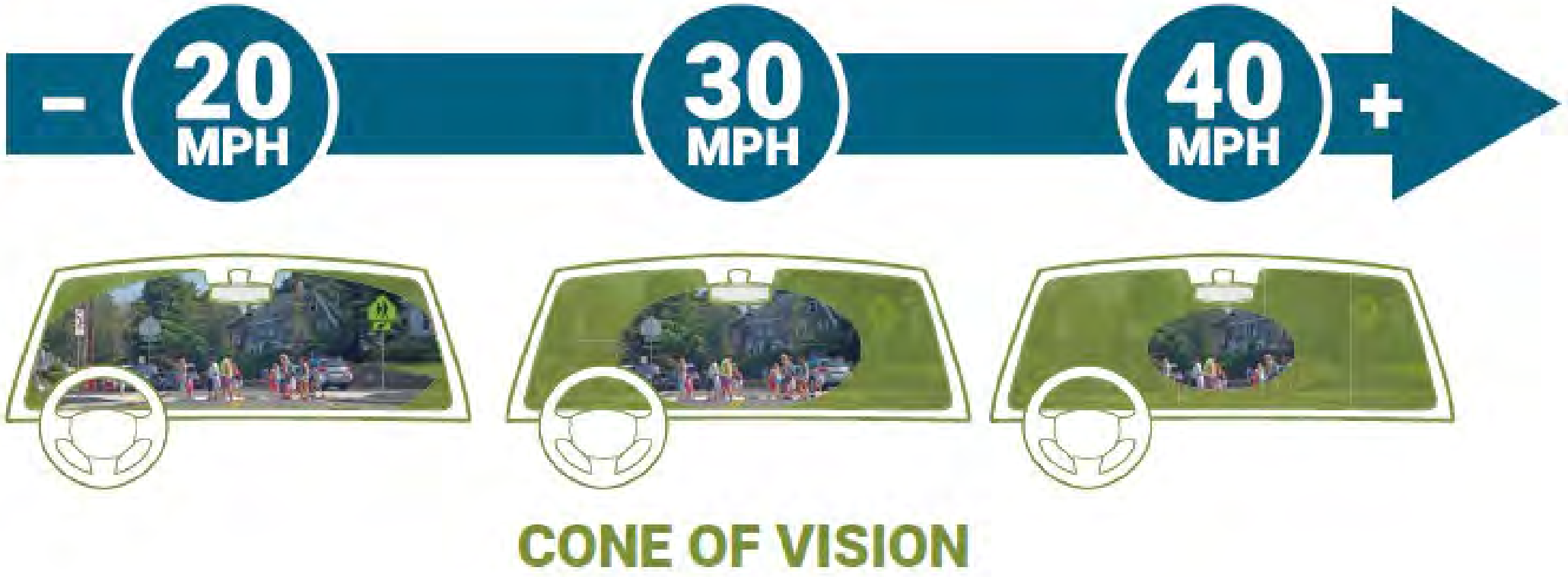
- Speeding kills more than 10,000/year
- On par with drunk driving
- Doesn't carry the same social consequences
- 30% of all fatal crashes nationwide
- Societal cost = $40 Billion annually
- *National problem, effective solutions must be applied locally*

Source: USDOT, NHTSA 2016 Traffic Safety Facts

SPEED TAKES THE BACK SEAT

Source: FHWA Achieving Multimodal Networks

SPEED TAKES THE BACK SEAT



Source: FHWA Achieving Multimodal Networks

SPEED MATTERS MOST

SPEED LIMIT REDUCTION RESULTS

Seattle

- 40% in crashes
- 30% in injury crashes

NYC

- 14% in crashes
- 49% in pedestrian crashes
- 42% in bicyclist crashes

Mexico City

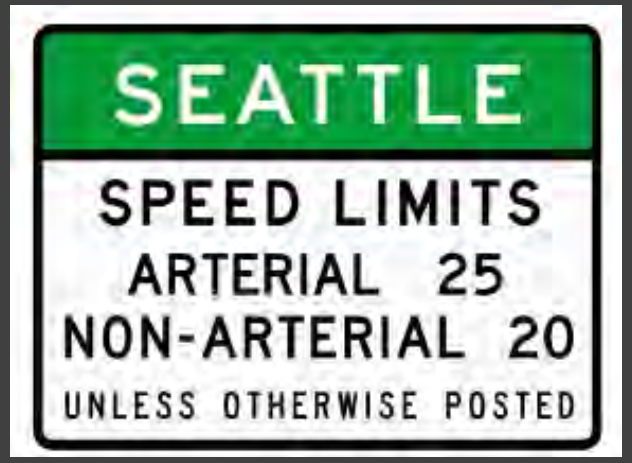
- 18% in crashes

Boston

- 30% in speeds over 35 MPH

Other Cities

- Portland, OR
- Cambridge, MA
- Albuquerque, NM
- Nashville, TN



SPEED MANAGEMENT ACTION PLAN – Study Scope

- Stakeholder Involvement
- Speed Management Practices
- Corridor Prioritization
- Corridor Community Engagement
- Speed Management Action Plan

Study Objectives

GOAL

- Improve public health and safety by reducing road fatalities and serious injuries.

DESIRED OUTCOMES

- *Improved safety experience* for all road users - pedestrians, bicyclists, and motorists.
- *Increase awareness* of the dangers of speeding.
- *Institutionalize good practices* in road design, traffic operations, engagement, enforcement and safety.
- Identify *supportive policies, programs and infrastructure* improvements to meet safety goal.
- Obtain *cooperation and support* of stakeholders.

Task 1 – STAKEHOLDER ENGAGEMENT

Partners & Stakeholders

- Hillsborough County MPO
- Hillsborough County
- Hillsborough County School District
- City of Tampa
- City of Temple Terrace
- Plant City
- Law Enforcement
- FDOT
- HART
- THEA
- Florida Health Department

Engagement Rules

- Be engaged
- Be respectful of others
- Be creative, innovative
- Be positive
- Be a problem solver
- Be a motivator for change
- Be a Safety Warrior!

… people are dying and we can make a difference!

TASK 2 - SPEED MANAGEMENT PRACTICES

- Existing Speed Management Practices
- Industry Best Practices
  - Statewide & National

Education

Engineering

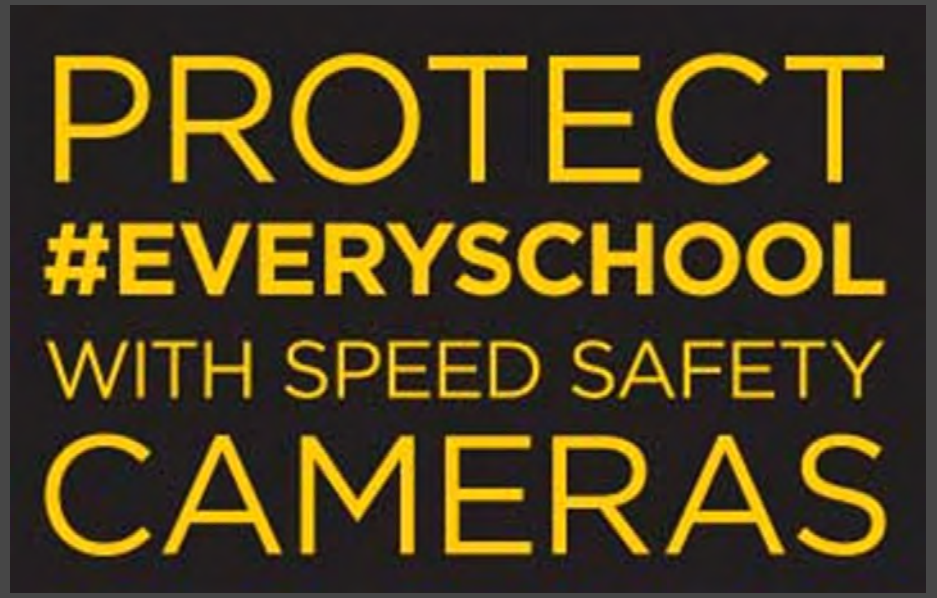
Enforcement

Equity

Evaluation

TASK 3 – CORRIDOR PRIORITIZATION

- Evaluate Top 20 HIN Corridors
- Develop Metrics for Prioritization
  - Severity
  - Equity
  - Focus on Pedestrian Crashes
  - Proximity to Schools
  - Ease of Implementation



Education

Engineering

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Evaluation

TASK 4 – CORRIDOR COMMUNITY ENGAGEMENT

- Community Event
- Select corridor
- Evaluate corridor needs - Baseline
- Identify and Install treatments & strategies

Task 5 -SPEED MANAGEMENT ACTION PLAN

Establish Enhanced Speed Management Practices

- In Conjunction with the Working Group
- Select Existing Speed Management Practices to Retain
- Select Statewide and National Best Practices to Adopt
- Generate Enhance Speed Management Practices

- Welcome & Introduction
- Study Objectives
- FDOT Speed Management – Pilot Projects
- Examples & Best Practices
- Stakeholder Input

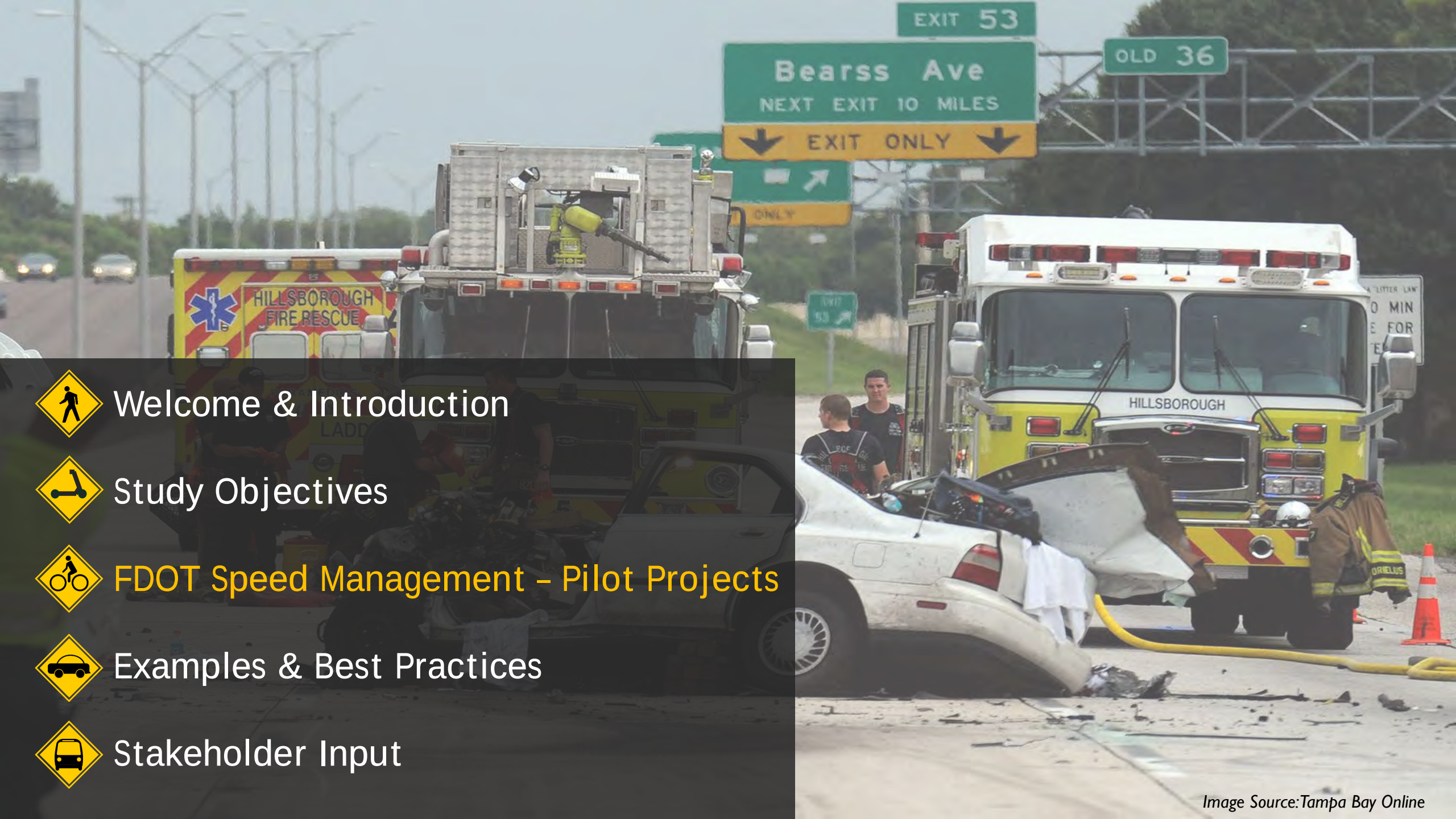

Image Source:Tampa Bay Online

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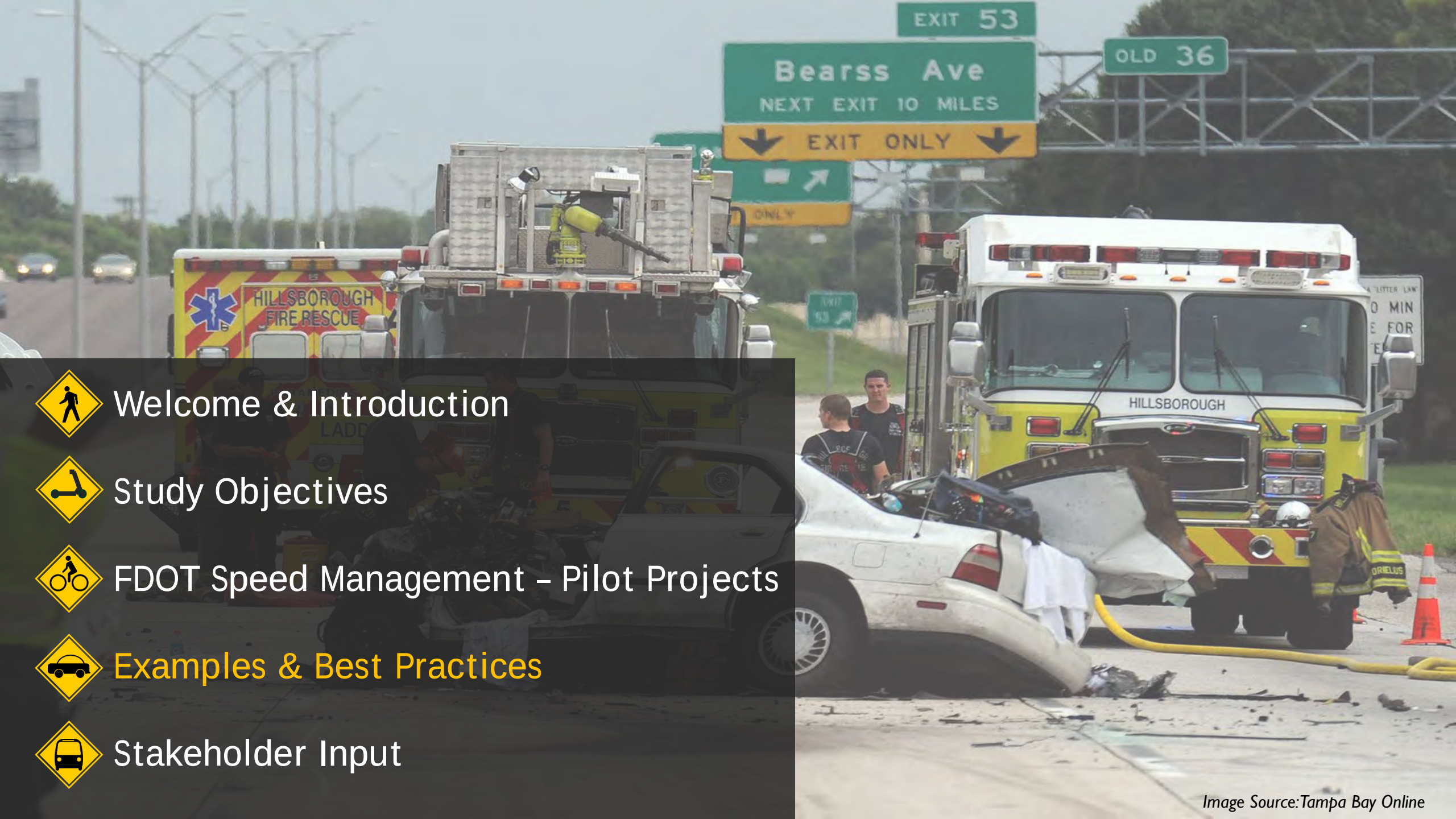


Image Source:Tampa Bay Online

WHAT IS SPEED MANAGEMENT?

SPEED MANAGEMENT PLAN ATTRIBUTES:

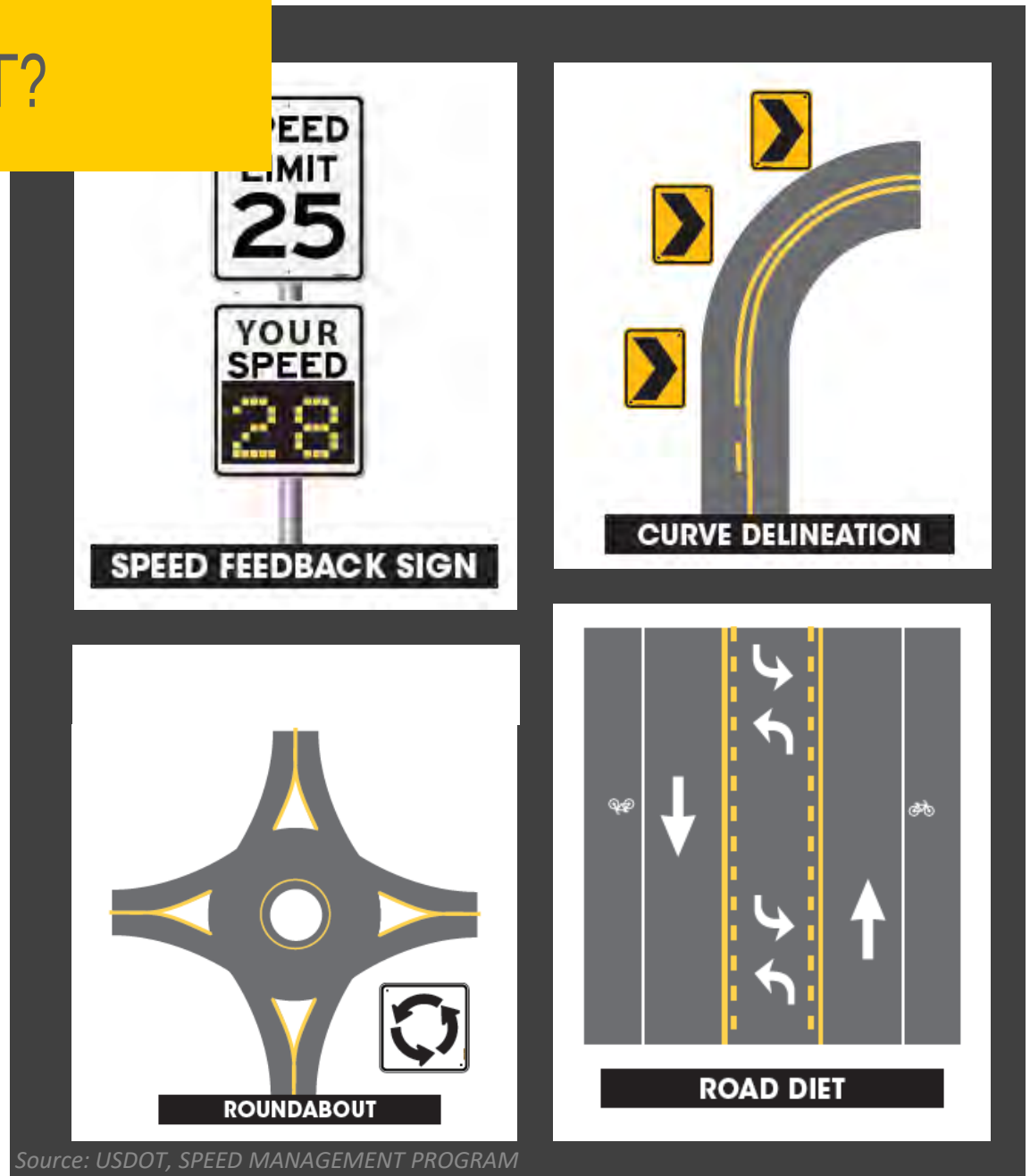
- Data-driven – crash, roadway, user, landuse data
- Applying road design, traffic operations, & safety measures
- Setting "appropriate/rational/desirable/safe" speed limits
- Institutionalize good practices
- Supportive enforcement efforts
- Effective outreach & public engagement
- Cooperation by traffic safety stakeholders

Source: USDOT, SPEED MANAGEMENT PROGRAM PLAN, MAY 2014

WHAT IS SPEED MANAGEMENT?

Design - Speed Management Countermeasures

- Road Diet
- Speed Humps / Tables
- Roundabouts
- Raised / Refuge islands
- On-Street Parking
- Street Trees
- Narrow Lane widths
- Horizontal/Vertical Curvature
- Short Blocks/ Midblock Crossings
- Pavement markings and Signs
- Leading Pedestrian Intervals
- No Right On Red



Source: USDOT, SPEED MANAGEMENT PROGRAM

US METHOD OF SETTING SPEED LIMITS

Base speed predicated on:

- 85th percentile speed
  - ✓ Based on collective judgement of majority of drivers
  - ✓ Posted limits usually set about 5mph lower
  - ✓ Method not supported by evidence
- USLIMITS2
  - ✓ Considers road, traffic, crash data, access, density, ped/bike activity
  - ✓ Median or 50th percentile speed used to set speed limits
- Safe Systems Approach = TARGET SPEED

85th PERCENTILE SPEED SETTING

2017 National Traffic Safety Board Study

…leads to unintended consequences of higher operating speeds

and

…an undesirable cycle of speed escalation and reduced safety!

WHAT IS SPEED MANAGEMENT?

Intelligent Transportation Systems

- Driver feedback signs
- Install signals to maintain an orderly progression
- Time signals for target speed
- Rest in Red signals
- Excessive speeds trigger red signal indication
- Variable speed limits

WHAT IS SPEED MANAGEMENT?

SUPPORTIVE ENFORCEMENT TECHNIQUES

- Automated Speed Enforcement
- Automated Red Light Cameras
- Targeted enforcement on high crash corridors
- Higher fines on high crash corridors
- Radar and Laser Speed Monitoring
- Aerial enforcement

- Welcome & Introduction
- Study Objectives
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Image Source:Tampa Bay Online

What do we focus on?

Share with your table potential metrics for prioritization of the corridors…

- What should be considered?
  - Pedestrian Crash Areas?
  - Proximity to schools?
  - Neighborhood demographics? Equity?
  - Severity of crashes?
  - Ease of implementation (low, medium, high cost?)

- Each table report back!

Other speed management techniques?

Share with your table other ideas…

- What is your agency doing?
- What else should be considered?

- Each table report back!

NEXT STEPS

- Initiate and Complete Task 2 and 3
- Schedule Working Group Meeting #2
  - Community Engagement Event
  - Pop-up Event

Education

Engineering

Enforcement

Equity

Evaluation

THANK YOU!

GPI

VISIONZERO HILLSBOROUGH

MANAGING SPEED on Hillsborough's High Injury Network

Stakeholder Meeting
October 15, 2019

Presented by:

Gena Torres

Hillsborough MPO
Metropolitan Planning for Transportation

Paula Flores

GPI

- Welcome & Introduction
- Update on Prioritization Progress
- Community Event – Candidate Corridor
- Community Event – Process & Roles
- Next Steps

Image Source: Tampa Bay Online

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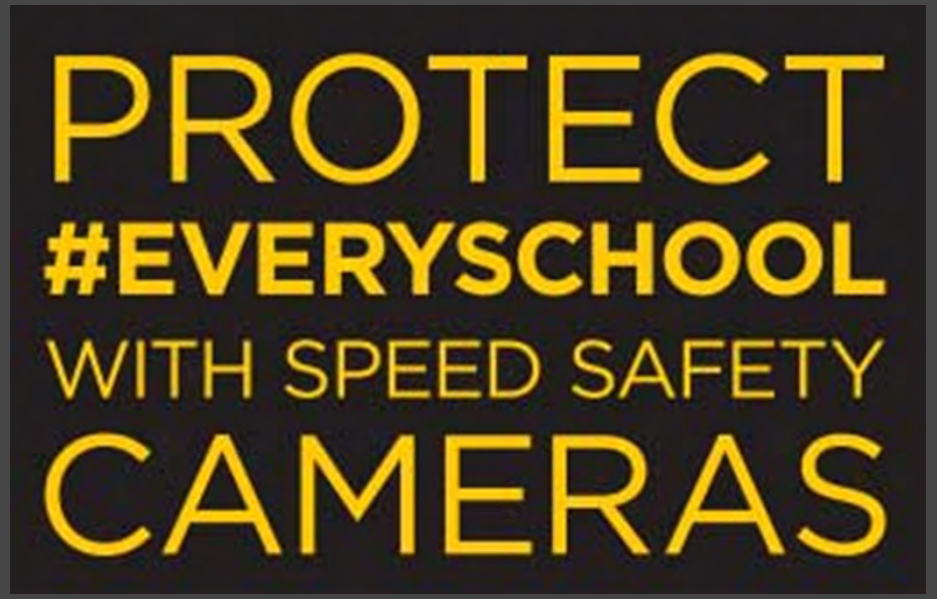

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HIN Crash Statistics (2014-2018)

- Total crashes - Increased by 13%
- Fatalities - Decreased by 4%
- Serious Injuries – Decreased by 30%
- Motorcycle crashes – Decreased by 10%
- Pedestrian Crashes – Increased by 10%
  - Pedestrian Fatalities – Increased by 41%
  - Serious Injuries – Reduced by 22%
- Bicycle Crashes – Reduced by 5%
  - -20%-30% Bicycle Fatalities/SI

Hillsborough County CDMS data
Crash data website: gpi.ninja/hillsborough/

2014 - 2018
Total Counts for Queried Years.

30,778	+12.7% ⬆		Total Crashes
113	-4.2% ⬇		Total Fatalities
976	-29.1% ⬇		Total Serious Injuries
61	-6.2% ⬇		Total Speeding Crashes
380	-10.2% ⬇	Total Fatalities & Injuries	**Motorcycle Crashes**
30	-16.7% ⬇	Total Fatalities	
100	-13.0% ⬇	Total Serious Injuries	
323	+9.1% ⬆	Total Fatalities & Injuries	**Pedestrian Crashes**
48	+41.2% ⬆	Total Fatalities	
83	-21.7% ⬇	Total Serious Injuries	
220	-4.4% ⬇	Total Fatalities & Injuries	**Cyclist Crashes**
8	-20.0% ⬇	Total Fatalities	
50	-29.6% ⬇	Total Serious Injuries	

HIN Crash Statistics (2014-2018)

Frequency by Age - <35 years old - 67% of Fatal crashes

Posted Speeds - 40MPH+ - 92% of Fatal crashes

Non-Intersection: 59% of Fatal crashes

Aggressive Driving/Speeding Related Factors: 71% of Fatal crashes

- Erratic Reckless, Aggravated maneuvers, ran off road, exceeded speed limit, ran red light, careless or negligent

Lighting: 53% of Fatal crashes occurred on “Dark-Lighted” streets

Time of Day: 83% of Fatal crashes occur Non-Peak

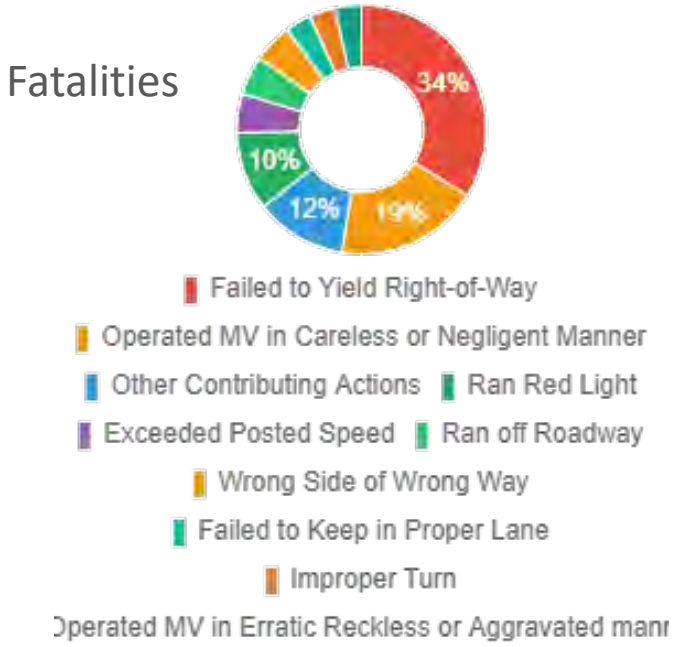
# of travel Lanes: 59% of Fatal crashes occur on >4 travel lanes

Vehicle Type: Fatal crashes involved - 43% cars, 24% SUV, 14% Motorcycles

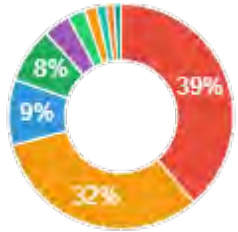
Crash data website: gpi.ninja/hillsborough/

Contributing Factors

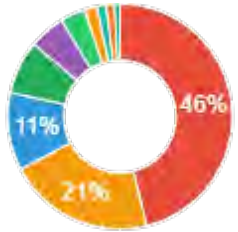
Fatalities



Serious Injuries



Total Crashes



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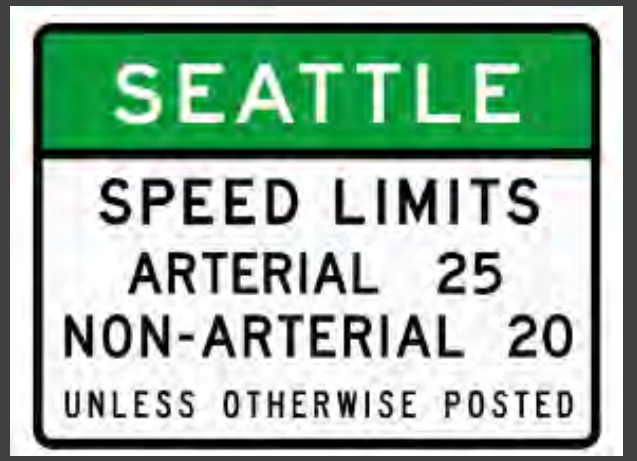


May Meeting - Stakeholder Feedback

Prioritization Factors:

(Ranked by order of most mentioned in breakout groups)

- Posted speed vs. context Class
- Regional equity (low income, Commissioner districts)
- Crash history
- Proximity to schools
- Ped/bike injuries
- Absence of lighting
- Ped/Bike level of stress
- Planned projects in Work Program / CIP
- Low hanging fruit – ease of implementation
- Transit service route
- Geometric features (volumes, lanes, intersection spacing)

Example Assessment – Posted Speed & Context Class

Corridor	Road Classification	Context Classification	ITE/CNU Class Speed Range*	Posted Speed (MPH)	Conflict Range (MPH)
1 Brandon Blvd from Falkenburg Rd to Dover Rd	Principal Arterial	C3 (35-55)	25-35 Max	45,50, 55	10-20
2 Gibsonton Dr/Boyette Rd from I-75 to Balm Riverview Rd	Arterial	C3 (35-55)	25-35 Max	45	10
3 Hillsborough Ave from Longboat Blvd to Florida Ave	Principal Arterial	C3 (35-55)	25-35 Max	45, 50	10-15
4 Fletcher Ave from Armenia Ave to 50th St	Principal Arterial	C3 (35-55)	25-35 Max	35, 40, 45	5-10
5 Dale Mabry from Hillsborough Ave to Bearss Ave	Principal Arterial	C3-C4 (30-45)	25-35 Max	45	10
6 Lynn Turner from Gunn Hwy to Ehrlich Rd	Arterial	C3 (35-55)	25-35 Max	45	10
7 Meridian Ave from Channelside Dr to Twiggs St	Arterial	C6 (25-30)	25-30 Max	40	10
8 Bruce B Downs from Fowler Ave to Bearss Ave	Arterial	C3 (35-55)	25-35 Max	45	10
9 50th/56th St from MLK Blvd to Hillsborough Ave	Principal Arterial	C3 (35-55)	25-35 Max	45	10
10 15th St from Fowler Ave to Fletcher Ave	Collector	C4 (30-45)	25-35 Max	30	0
11 Big Bend Road from US41 to I75	Arterial	C3 (35-55)	25-35 Max	45	10
12 US301 from I75 to Adamo Dr	Principal Arterial	C3 (35-55)	25-35 Max	50	15
13 Sheldon Rd from Hillsborough Ave to Water Ave	Arterial	C3 (35-55)	25-35 Max	45	10
14 I4 from I275 to 22nd St	Freeway	Urban (50-70)	50-70	55	0
15 56th St from Sligh Ave to Busch Blvd	Principal Arterial	C4 (30-45)	25-35 Max	35, 45	10
16 I275 from Howard Frankland Bridge to Busch Blvd	Freeway	Urban (50-70)	50-70	55, 60	0
17 Kennedy Blvd from Dale Mabry to Ashley Dr	Principal Arterial	C4 (30-45)	25-35 Max	40, 45	5-10
18 78th St from Causeway Blvd to Palm River Rd	Arterial	C4 (30-45)	25-35 Max	45	10
19 CR579/Mango Rd from MLK Blvd to US92	Arterial	C4 (30-45)	25-35 Max	45	10
20 Florida Ave from Waters Ave to Linebaugh Ave	Arterial	C4 (30-45)	25-35 Max	40, 45	5-10

Overall

- 70% are 5-10MPH over National Practice
- 15% are 15-20MPH over National Practice

*Designing Walkable Urban Thoroughfares: A Context Sensitive Approach - An ITE Recommended Practice, ITE, CNU, 2010

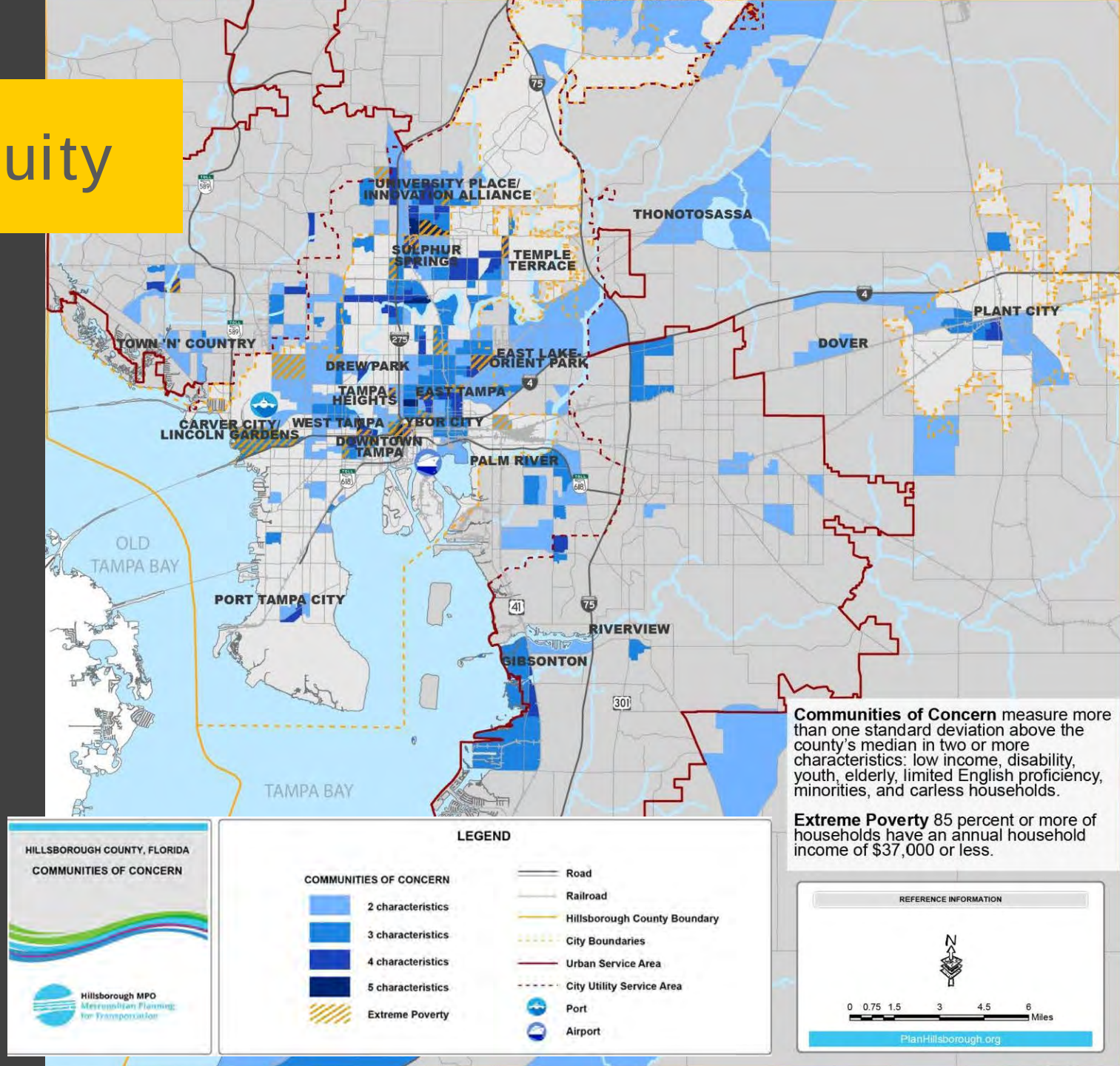
Sponsored by: FHWA Office of Infrastructure, Office of Planning, Environment and Realty, & Office of Sustainable Communities, US Environmental Protection Agency

Example Assessment – Equity

Communities of Concern

Which measure more than one standard deviation above the county's median in two or more characteristics: low income, disability, youth, elderly, limited English proficiency, minorities and carless households.

- Overlaid HIN corridors
- Estimated distance of frontage of each COC category on the corridor
- Assigned a point system for each COC category on the corridor
- Developed a Risk Performance Level – the higher the deviations, the higher the points, the higher the risk.

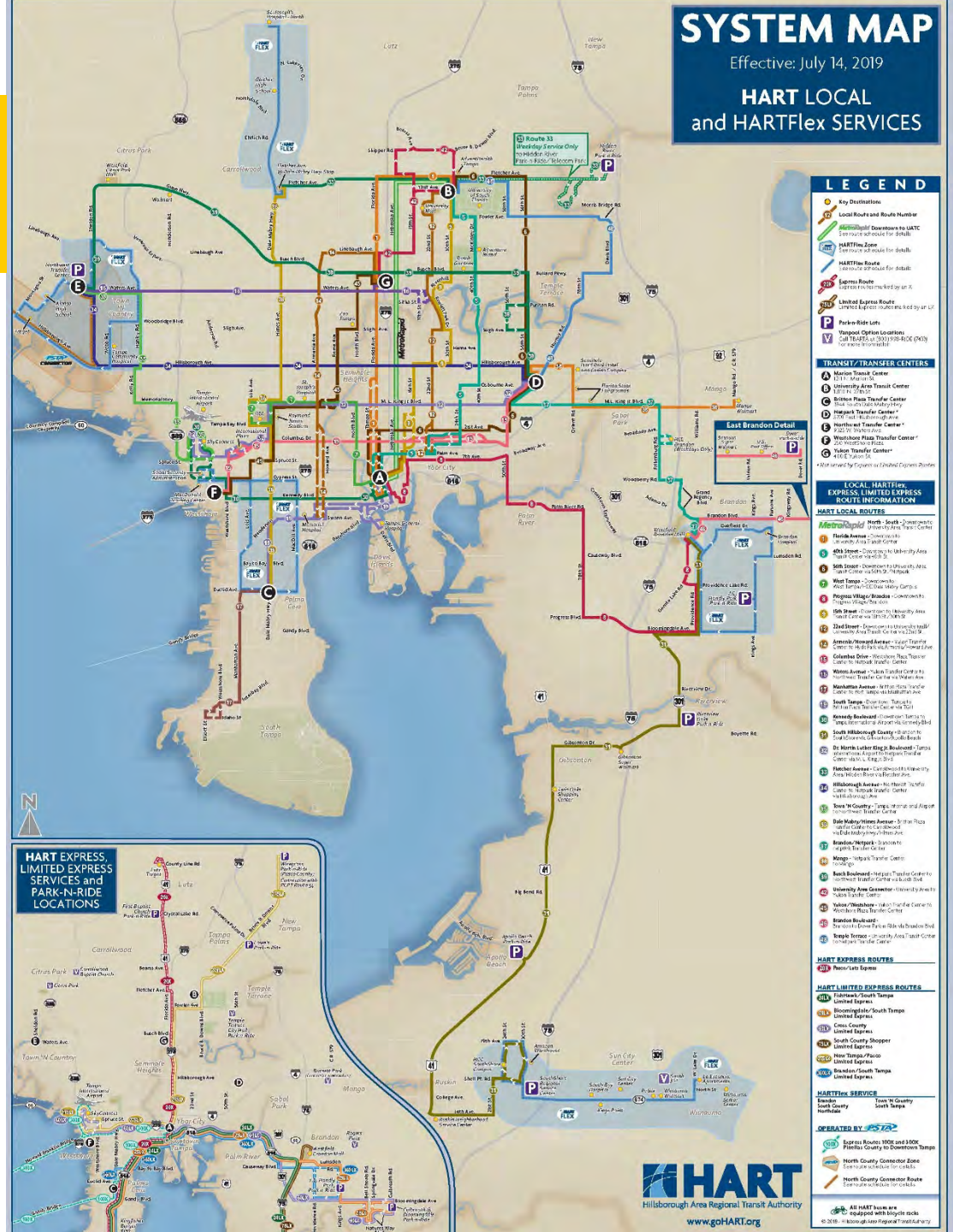


Example Assessment – Transit Service Routes

- Overlaid HIN corridors
- Identified how many service routes traverse the corridor
- Identified how many routes cross the corridor
- Identified if a transfer center or park and ride lot exists
- Identified what key destinations (grocery, health care, schools, etc.) exist with transit access
- Assigned a point system for each category
- Developed a Risk Performance Level –

  the higher the services provided, the higher the points, the higher the risk.

Performance Level	
	High
	Medium
	Low



Priority Matrix

Corridor	Extent	Crash Severity / Mile	Ped/Bike Crash Rate/Mile	Schools / Mile	Equity CoC Coverage	Posted Speed - Context Class Conflict	Transit Routes	High Volumes	High # Lanes	
Brandon Blvd	Falkenburg Rd to Dover Rd	●	◑	●	○	●	◑	◑		**5.3**
Gibsonton Dr/Boyette Rd	I-75 to Balm Riverview Rd	●	○	●	◑	●	○	○		**4.7**
Hillsborough Ave	Longboat Blvd to Florida Ave	◑	●	●	◑	●	◑	◑		**5.7**
Fletcher Ave	Armenia Ave to 50th St	◑	●	○	●	●	◑	◑		**5.3**
Dale Mabry	Hillsborough Ave to Bearss Ave	◑	◑	●	●	●	◑	◑		**5.7**
Lynn Turner	Gunn Hwy to Ehrlich Rd	◑	○	○	○	●	○	○		**3.3**
Meridian Ave	Channelside Dr to Twiggs St	●	○	◑	◑	●	◑	○		**4.7**
Bruce B Downs	Fowler Ave to Bearss Ave	◑	●	◑	●	●	●	◑		**6.0**
50th/56th St	MLK Blvd to Hillsborough Ave	◑	○	◑	●	●	●	○		**5.0**
15th St	Fowler Ave to Fletcher Ave	●	●	○	●	○	○	○	T	**4.3**
Big Bend Road	US41 to I75	◑	○	●	○	●	○	○	B	**4.0**
US301	I75 to Adamo Dr	◑	○	○	○	●	○	◑	D	**3.7**
Sheldon Rd	Hillsborough Ave to Water Ave	◑	●	●	◑	●	◑	○		**5.3**
I4	I275 to 22nd St	●	○	○	○	○	○	●		**3.7**
56th St	Sligh Ave to Busch Blvd	◑	●	◑	○	●	◑	◑		**5.0**
I275	Howard Frankland Bridge to Busch Blvd	○	○	◑	○	○	●	●		**4.0**
Kennedy Blvd	Dale Mabry to Ashley Dr	●	◑	◑	◑	●	◑	◑		**5.3**
78th St	Causeway Blvd to Palm River Rd	●	◑	○	◑	●	○	○		**4.3**
CR579/Mango Rd	from MLK Blvd to US92	◑	○	●	○	●	○	○		**4.0**
Florida Ave	Waters Ave to Linebaugh Ave	●	●	○	●	●	●	○		**5.7**

Priority Scoring

	High
	Medium
	Low

Performance Level

●	High
◑	Medium
○	Low

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- Update on Prioritization Progress
- Community Event – Candidate Corridor
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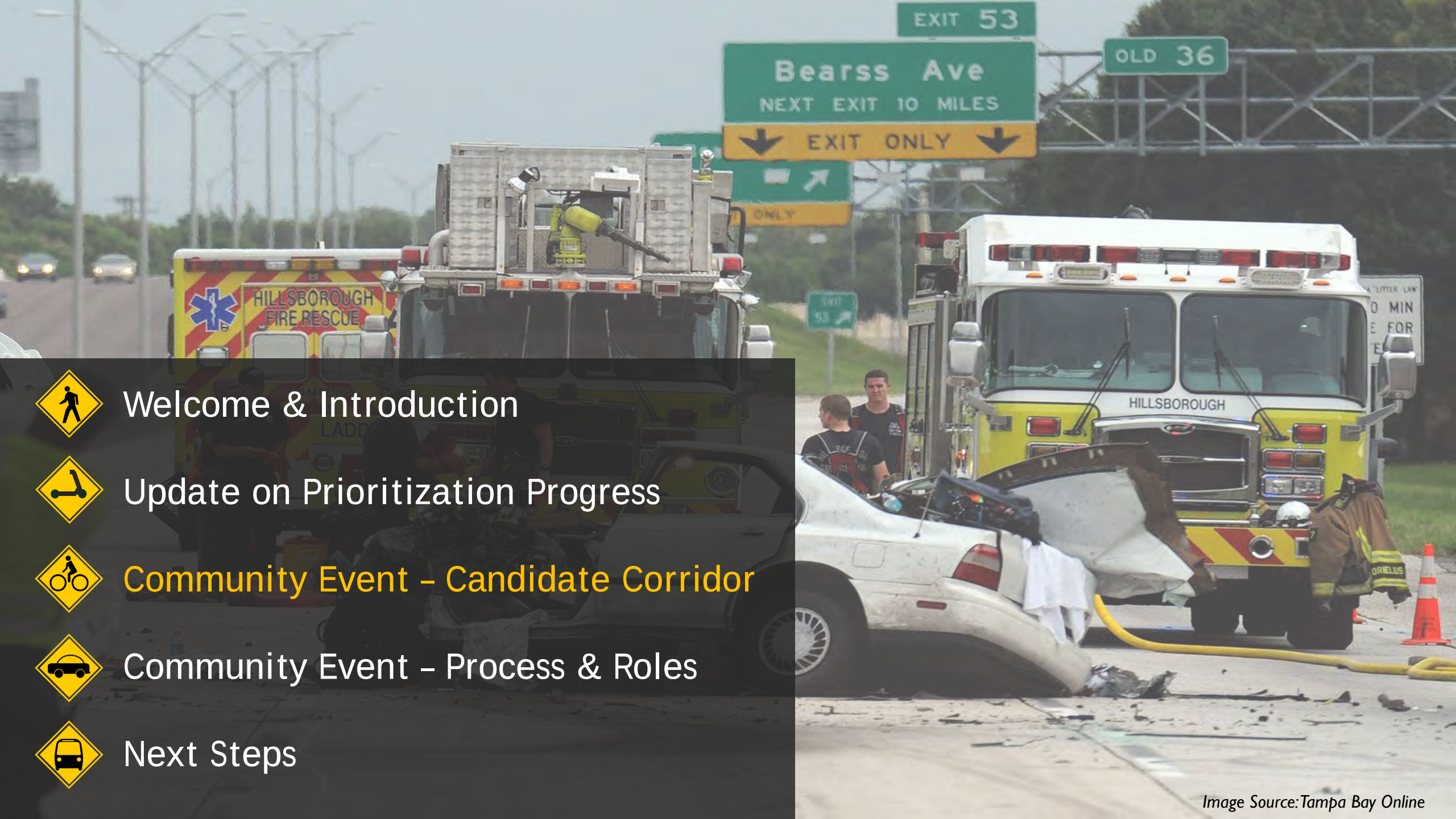


Image Source: Tampa Bay Online

TASK 4 – CORRIDOR COMMUNITY ENGAGEMENT

- Community Event
- Select corridor
- Evaluate corridor needs - Baseline
- Identify and Install treatments & strategies

EXAMPLE - Sheldon Road - Hillsborough to Waters Ave (2014-2018)

- High Priority Corridor
- Over 15 Severe crashes per mile
- Total Crashes – Increased by 18%
- Fatalities – Increased by 13%
- Serious Injuries – Decreased by 32%
- Motorcycle crashes - More Fatal
- Pedestrian crashes – Increased by 4%
- Bicycle crashes – Decreased by 25%

Crash data website: gpi.ninja/hillsborough/

2014 - 2018
Total Counts for Queried Years

953	+17.9% ⬆		Total Crashes
9	+12.5% ⬆		Total Fatalities
23	-32.4% ⬇		Total Serious Injuries
2	-33.3% ⬇		Total Speeding Crashes
6	-14.3% ⬇	Total Fatalities & Injuries	**Motorcycle Crashes**
2	+100.0% ⬆	Total Fatalities	
0	-100.0% ⬇	Total Serious Injuries	
20	+4.0% ⬆	Total Fatalities & Injuries	**Pedestrian Crashes**
2	0.0%	Total Fatalities	
7	-22.2% ⬇	Total Serious Injuries	
13	-25.0% ⬇	Total Fatalities & Injuries	**Cyclist Crashes**
0	-100.0% ⬇	Total Fatalities	
2	-50.0% ⬇	Total Serious Injuries	

EXAMPLE - Sheldon Road
- Hillsborough to Waters Ave (2014-2018)

Frequency by Age - <35 years old - 50% of Fatal crashes

Non-Intersection: 33% of Fatal crashes

T-Intersection: 44% of Fatal Crashes

Aggressive Driving/Speeding Related Factors: 72% of Fatal crashes

- Erratic Reckless, Aggravated maneuvers, ran off road, exceeded speed limit, ran red light, careless or negligent, drove too fast

Lighting: 44% of Fatal crashes occurred at night

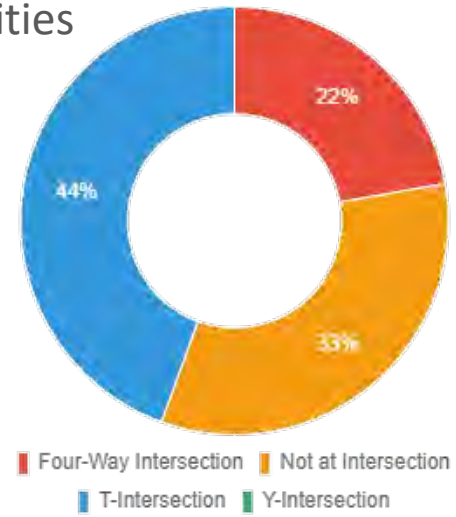
Time of Day: 78% of Fatal crashes occur Non-Peak

Vehicle Type: Fatal crashes involved - 62% cars, 13% SUV, 25% Motorcycles

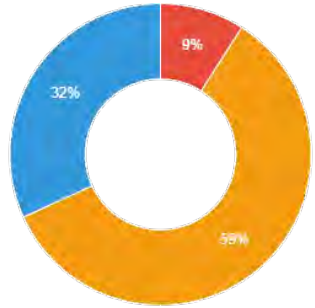
Crash data website: gpi.ninja/hillsborough/

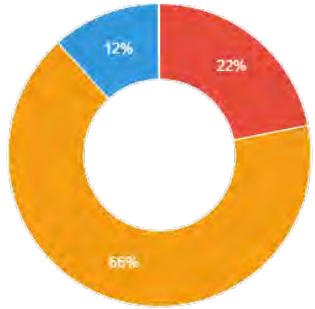
Crash Location

Fatalities



Serious Injuries





Total Crashes

It’s your turn… What are your thoughts?

What speed management Pop-Up techniques could be considered on similar corridors?


LADOT – Los Angeles, CA


Toronto Center for Active Transportation tcat.ca


Bikewalkkc.org


Rockford, IL

- Welcome & Introduction
- Update on Prioritization Progress
- Community Event – Candidate Corridor
- Community Event – Process & Roles
- Next Steps

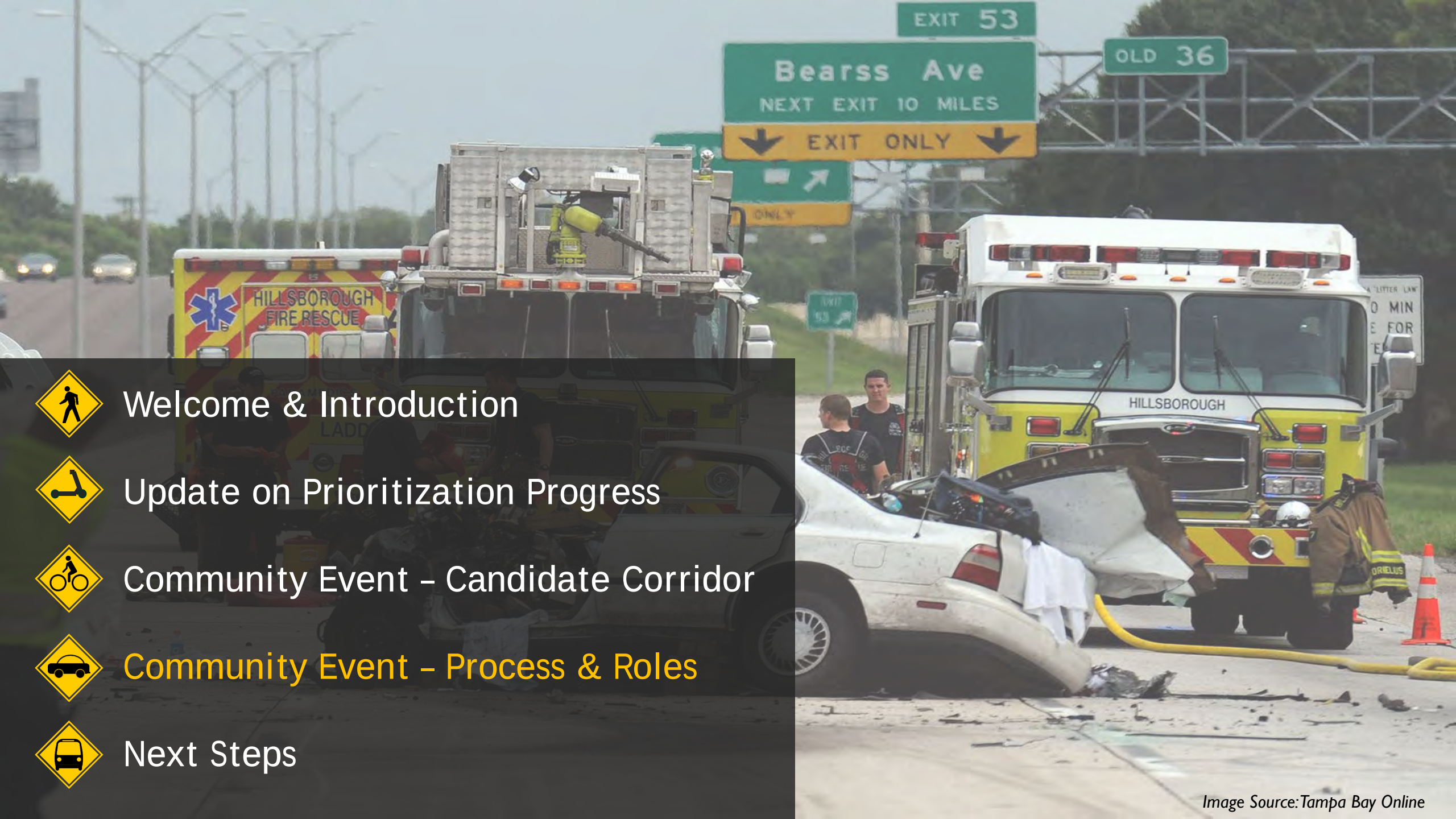


Image Source: Tampa Bay Online

Community Event - Process

- Meet with local community leaders
- Set date early February
- Who to invite? Send invitations
- Prepare demonstration materials


LADOT – Los Angeles, CA


blogspot.com–Toronto


Fayetteville, AK


Bikewalkkc.org

Community Event – Stakeholder Roles

- Outreach
- Logistics
- Materials
- Set up
- Safety


Chicago, IL


LADOT – Los Angeles, CA


blogspot.com–Toronto


Fayetteville, AK


Bikewalkkc.org

NEXT STEPS

- Work with County and State – Candidate Corridor
- Task 4 Community Event – February
- Initiate - Task 5 Speed Management Action Plan

THANK YOU!

Hillsborough MPO
Metropolitan Planning
for Transportation

VISIONZERO HILLSBOROUGH

MANAGING SPEED on Hillsborough's High Injury Network

Hillsborough MPO
Metropolitan Planning for Transportation

Stakeholder Meeting

April 27, 2020

Presented by:
Paula C. Flores, FITE
Transportation Planning Practice Leader
Greenman-Pedersen, Inc.
pflores@gpinet.com
@Paula_CFlores

GPI

Study Objectives

GOAL

- Improve public health and safety by reducing road fatalities and serious injuries.

DESIRED OUTCOMES

- *Improved safety experience* for all road users - pedestrians, bicyclists, and motorists.
- *Increase awareness* of the dangers of speeding.
- *Institutionalize good practices* in road design, traffic operations, engagement, enforcement and safety.
- Identify *supportive policies, programs and infrastructure* improvements to meet safety goal.
- Obtain *cooperation and support* of stakeholders.

SPEED MANAGEMENT ACTION PLAN – Study Scope

- Task 1 - Stakeholder Involvement
- Task 2 - Speed Management Practices
- Task 3 - Corridor Prioritization
- Task 4 – Next30 High Injury Corridors
- Task 5 - Speed Management Action Plan

Task 1 – STAKEHOLDER ENGAGEMENT

Partners & Stakeholders

- Hillsborough County MPO
- Hillsborough County
- Hillsborough County School District
- City of Tampa
- City of Temple Terrace
- Plant City
- Law Enforcement
- FDOT
- HART
- THEA
- Florida Health Department

Engagement Rules

- Be engaged
- Be respectful of others
- Be creative, innovative
- Be positive
- Be a problem solver
- Be a motivator for change
- Be a Safety Warrior!

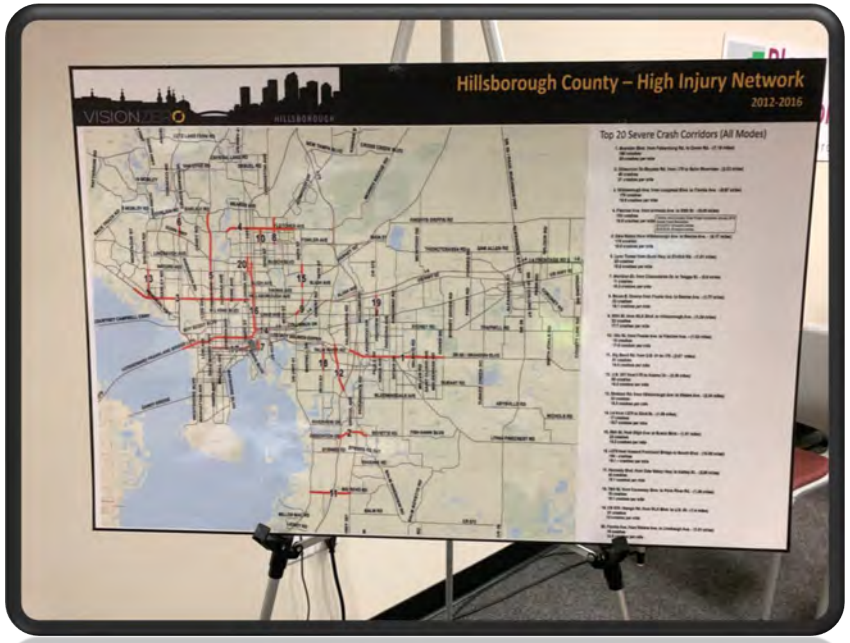
… people are dying, and we can make a difference!

Stakeholder Meetings

May 24, 2019

October 2019

April 2020



Stakeholder Feedback

Prioritization Factors:

(Ranked by order of most mentioned in breakout groups)

- Posted speed vs. context Class
- Regional equity (low income, Commissioner districts)
- Crash history
- Proximity to schools
- Ped/bike injuries
- Absence of lighting
- Ped/Bike level of stress
- Planned projects in Work Program / CIP
- Low hanging fruit – ease of implementation
- Transit service route
- Geometric features (volumes, lanes, intersection spacing)

Stakeholder Feedback

Potential Countermeasures:

- Wider use of Red-Light Cameras – do studies; change how we speak about them, and apply revenue for safety improvements
- Enforcement - Consider photo enforcement, share example case studies; manual vs automated enforcement assessment; need legislation.
- Outreach & Education – at schools; more resources to E's; build community partnerships; support from local elected officials
- Crosswalks - Elevated crosswalks; increase density in urban areas
- Tactical Urbanism – more pilot projects; use bollards/quick curb
- Traffic Signals - Coordination for target speed; increase density of # of signals; smart technology for vehicle detection;
- Speed Limit Signs – enhance visibility with panels and bright sticks
- Land use patterns – mixed and higher density
- More roundabouts
- More on-street parking
- Lane eliminations

TASK 2 - SPEED MANAGEMENT PRACTICES

- Existing Speed Management Practices
- Industry Best Practices
  - Statewide & National

Education

Engineering

Enforcement

Equity

Evaluation

WHAT IS SPEED MANAGEMENT?

SPEED MANAGEMENT PLAN ATTRIBUTES:

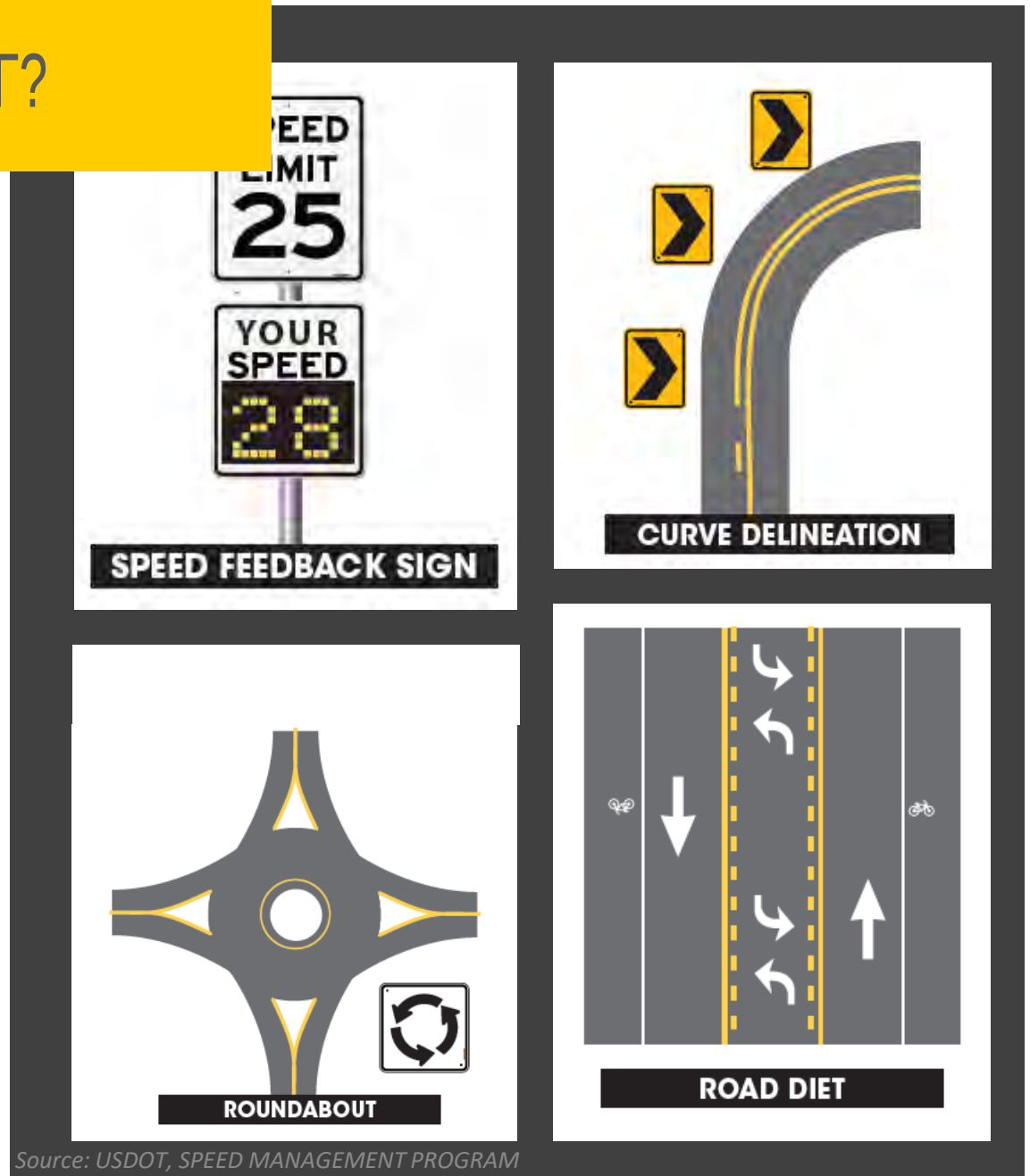
- Data-driven – crash, roadway, user, landuse data
- Applying road design, traffic operations, & safety measures
- Setting "appropriate/rational/desirable/safe" speed limits
- Institutionalize good practices
- Supportive enforcement efforts
- Effective outreach & public engagement
- Cooperation by traffic safety stakeholders

Source: USDOT, SPEED MANAGEMENT PROGRAM PLAN, MAY 2014

WHAT IS SPEED MANAGEMENT?

Design - Speed Management Countermeasures

- Road Diet
- Speed Humps / Tables
- Roundabouts
- Raised / Refuge islands
- On-Street Parking
- Street Trees
- Narrow Lane widths
- Horizontal/Vertical Curvature
- Short Blocks/ Midblock Crossings
- Pavement markings and Signs
- Leading Pedestrian Intervals
- No Right On Red



Source: USDOT, SPEED MANAGEMENT PROGRAM

WHAT IS SPEED MANAGEMENT?

Intelligent Transportation Systems

- Driver feedback signs
- Install signals to maintain an orderly progression
- Time signals for target speed
- Rest in Red signals
- Excessive speeds trigger red signal indication
- Variable speed limits

WHAT IS SPEED MANAGEMENT?

SUPPORTIVE ENFORCEMENT TECHNIQUES

- Automated Speed Enforcement
- Automated Red Light Cameras
- Targeted enforcement on high crash corridors
- Higher fines on high crash corridors
- Radar and Laser Speed Monitoring
- Aerial enforcement

TASK 3 – CORRIDOR PRIORITIZATION

- Evaluate Top 20 HIN Corridors
- Develop Metrics for Prioritization
  - Severity
  - Equity
  - Focus on Pedestrian Crashes
  - Proximity to Schools
  - Ease of Implementation

Education · Engineering · Enforcement · Equity · Evaluation

Example Assessment -Posted Speed & Context Class

Overall

- 70% are 5-10MPH over National Practice
- 15% are 15-20MPH over National Practice

Corridor	Road Classification	Context Classification	ITE/CNU Class Speed Range*	Posted Speed (MPH)	Conflict Range (MPH)
Brandon Blvd from Falkenburg Rd to Dover Rd	Principal Arterial	C3 (35-55)	25-35 Max	45,50, 55	10-20
Gibsonton Dr/Boyette Rd from I-75 to Balm Riverview Rd	Arterial	C3 (35-55)	25-35 Max	45	10
Hillsborough Ave from Longboat Blvd to Florida Ave	Principal Arterial	C3 (35-55)	25-35 Max	45, 50	10-15
Fletcher Ave from Armenia Ave to 50th St	Principal Arterial	C3 (35-55)	25-35 Max	35, 40, 45	5-10
Dale Mabry from Hillsborough Ave to Bearss Ave	Principal Arterial	C3-C4 (30-45)	25-35 Max	45	10
Lynn Turner from Gunn Hwy to Ehrlich Rd	Arterial	C3 (35-55)	25-35 Max	45	10
Meridian Ave from Channelside Dr to Twiggs St	Arterial	C6 (25-30)	25-30 Max	40	10
Bruce B Downs from Fowler Ave to Bearss Ave	Arterial	C3 (35-55)	25-35 Max	45	10
50th/56th St from MLK Blvd to Hillsborough Ave	Principal Arterial	C3 (35-55)	25-35 Max	45	10
15th St from Fowler Ave to Fletcher Ave	Collector	C4 (30-45)	25-35 Max	30	0
Big Bend Road from US41 to I75	Arterial	C3 (35-55)	25-35 Max	45	10
US301 from I75 to Adamo Dr	Principal Arterial	C3 (35-55)	25-35 Max	50	15
Sheldon Rd from Hillsborough Ave to Water Ave	Arterial	C3 (35-55)	25-35 Max	45	10
I4 from I275 to 22nd St	Freeway	Urban (50-70)	50-70	55	0
56th St from Sligh Ave to Busch Blvd	Principal Arterial	C4 (30-45)	25-35 Max	35, 45	10
I275 from Howard Frankland Bridge to Busch Blvd	Freeway	Urban (50-70)	50-70	55, 60	0
Kennedy Blvd from Dale Mabry to Ashley Dr	Principal Arterial	C4 (30-45)	25-35 Max	40, 45	5-10
78th St from Causeway Blvd to Palm River Rd	Arterial	C4 (30-45)	25-35 Max	45	10
CR579/Mango Rd from MLK Blvd to US92	Arterial	C4 (30-45)	25-35 Max	45	10
Florida Ave from Waters Ave to Linebaugh Ave	Arterial	C4 (30-45)	25-35 Max	40, 45	5-10

*Designing Walkable Urban Thoroughfares: A Context Sensitive Approach- An ITE Recommended Practice, ITE, CNU, 2010

HIN Crash Statistics (2014-2018)

Fatal Crash Characteristics

67%

< 35 Years Old

92%

SPEED LIMIT 40+

59%

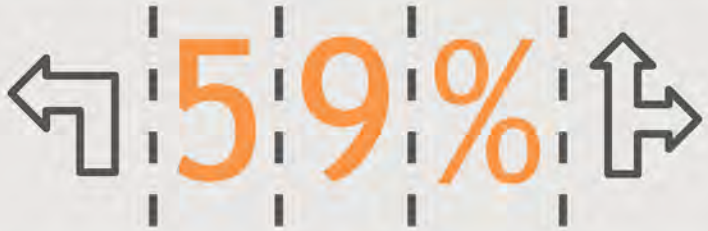
Non-Intersections

Aggressive Driving/Speeding

Erratic Reckless, Aggravated maneuvers, ran off road, exceeded speed limit, ran red light, careless or negligent

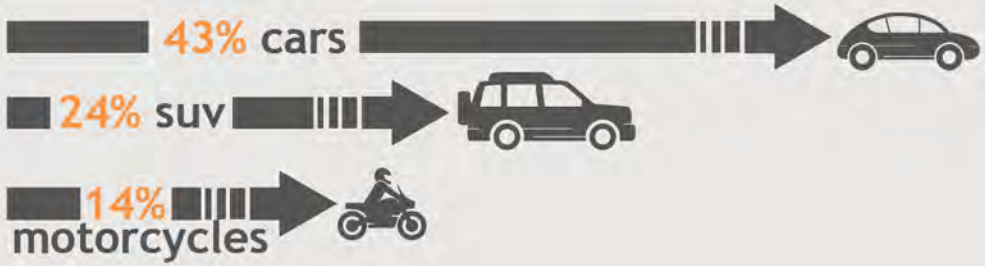
71%

Non-Peak Hours 83%



59%

4 or more travel lanes



Prioritization Factors

Identified-
Risk Performance Level

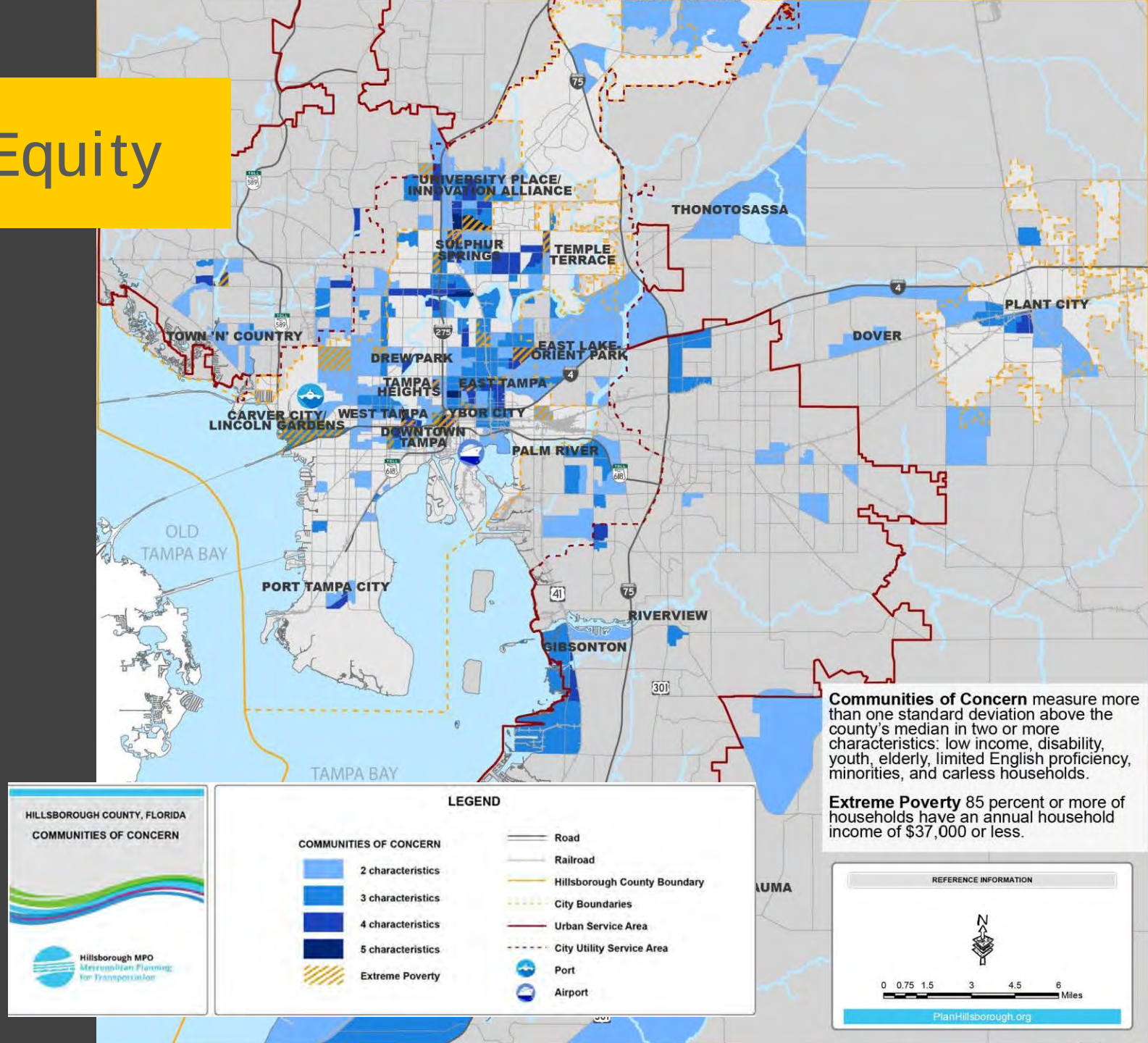
- Posted speed vs. context Class
- Regional equity (low income, Commissioner districts)
- Crash history
- Proximity to schools
- Ped/bike injuries
- Transit service route
- Geometric features (volumes, lanes, intersection spacing)

Example Assessment – Equity

Communities of Concern

Which measure more than one standard deviation above the county's median in two or more characteristics: low income, disability, youth, elderly, limited English proficiency, minorities and carless households.

- Overlaid HIN corridors
- Estimated distance of frontage of each COC category on the corridor
- Assigned a point system for each COC category on the corridor
- Developed a Risk Performance Level – the higher the deviations, the higher the points, the higher the risk.

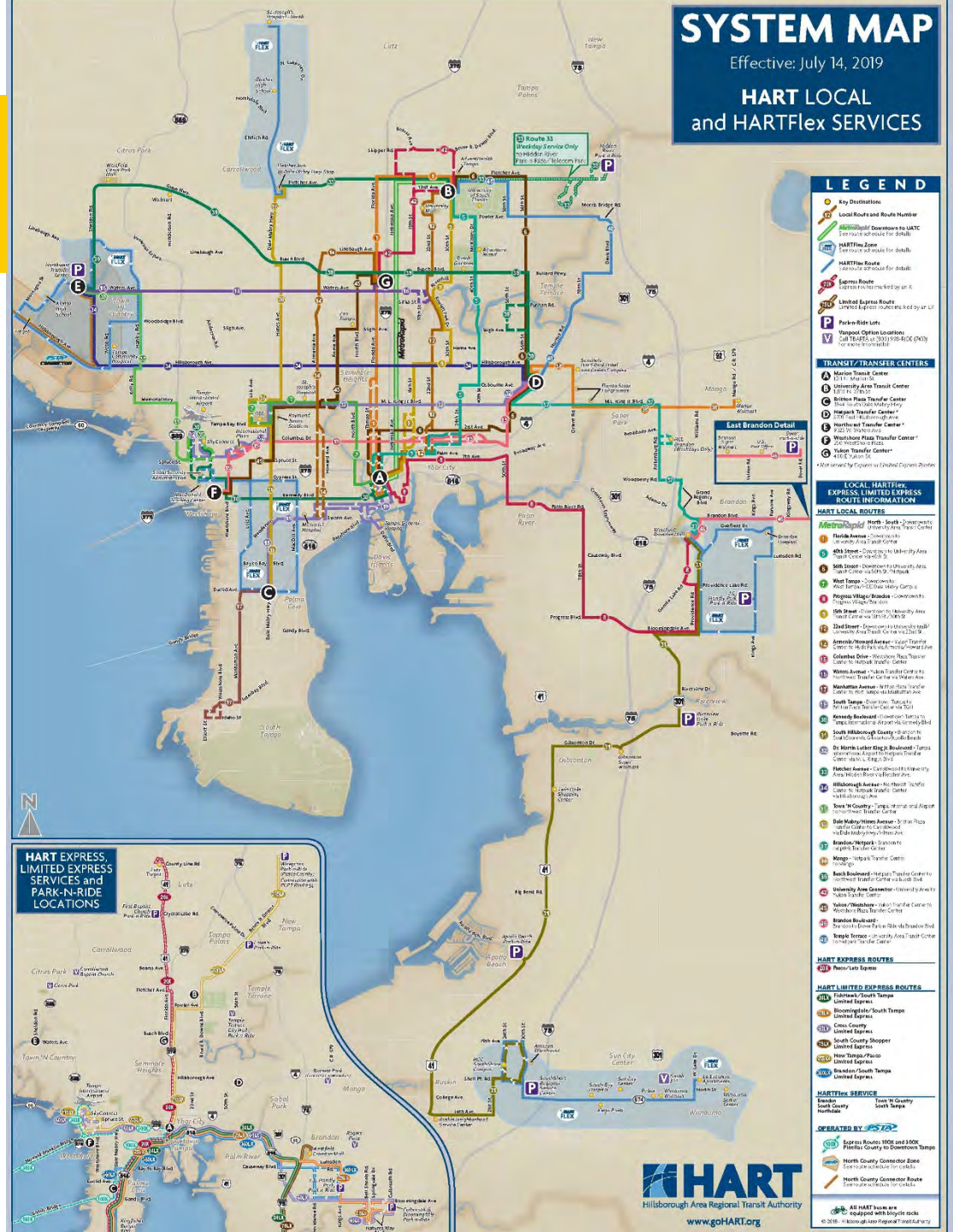


Example Assessment – Transit Service Routes

- Overlaid HIN corridors
- Identified how many service routes traverse the corridor
- Identified how many routes cross the corridor
- Identified if a transfer center or park and ride lot exists
- Identified what key destinations (grocery, health care, schools, etc.) exist with transit access
- Assigned a point system for each category
- Developed a Risk Performance Level –

  the higher the services provided, the higher the risk, the higher the points.

Performance Level	
	High
	Medium
	Low



Top 20 - Priority Matrix

Corridor and Extent

Corridor	Extent	Crash Severity / Mile	Ped/Bike Crash Rate/ Mile	Schools / Mile	Equity CoC Coverage	Posted Speed – Context Class Conflict	Transit Routes	High Volumes	
Brandon Blvd	Falkenburg Rd to Dover Rd	High	Medium	High	Low	High	Medium	Medium	5.3
Gibsonton Dr/Boyette Rd	I-75 to Balm Riverview Rd	High	Low	High	Medium	High	Low	Low	4.7
Hillsborough Ave	Longboat Blvd to Florida Ave	Medium	High	High	Medium	High	Medium	Medium	5.7
Fletcher Ave	Armenia Ave to 50th St	Medium	High	Low	High	High	Medium	Medium	5.3
Dale Mabry	Hillsborough Ave to Bearss Ave	Medium	Medium	High	High	High	Medium	Medium	5.7
Lynn Turner	Gunn Hwy to Ehrlich Rd	Medium	Low	Low	Low	High	Low	Low	3.3
Meridian Ave	Channelside Dr to Twiggs St	High	Low	Medium	Medium	High	Medium	Low	4.7
Bruce B Downs	Fowler Ave to Bearss Ave	Medium	High	Medium	High	High	High	Medium	6.0
50th/56th St	MLK Blvd to Hillsborough Ave	Medium	Low	Medium	High	High	High	Low	5.0
15th St	Fowler Ave to Fletcher Ave	High	High	Low	High	Low	Low	Low	4.3
Big Bend Road	US41 to I75	Medium	Low	High	Low	High	Low	Low	4.0
US301	I75 to Adamo Dr	Medium	Low	Low	Low	High	Low	Medium	3.7
Sheldon Rd	Hillsborough Ave to Water Ave	Medium	High	High	Medium	High	Medium	Low	5.3
I4	I275 to 22nd St	High	Low	Low	Low	Low	Low	High	3.7
56th St	Sligh Ave to Busch Blvd	Medium	High	Medium	Low	High	Medium	Medium	5.0
I275	Howard Frankland Bridge to Busch Blvd	Low	Low	Medium	Low	Low	High	High	4.0
Kennedy Blvd	Dale Mabry to Ashley Dr	High	Medium	Medium	Medium	High	Medium	Medium	5.3
78th St	Causeway Blvd to Palm River Rd	High	Medium	Low	Medium	High	Low	Low	4.3
CR579/Mango Rd	from MLK Blvd to US92	Medium	Low	High	Low	High	Low	Low	4.0
Florida Ave	Waters Ave to Linebaugh Ave	High	High	Low	High	High	High	Low	5.7

Priority Scoring

- High
- Medium
- Low

Performance Level

- High
- Medium
- Low

TASK 4 – Next Top 30 HIN Corridors

- Identify Next30
- Prioritize Next30


LADOT – Los Angeles, CA

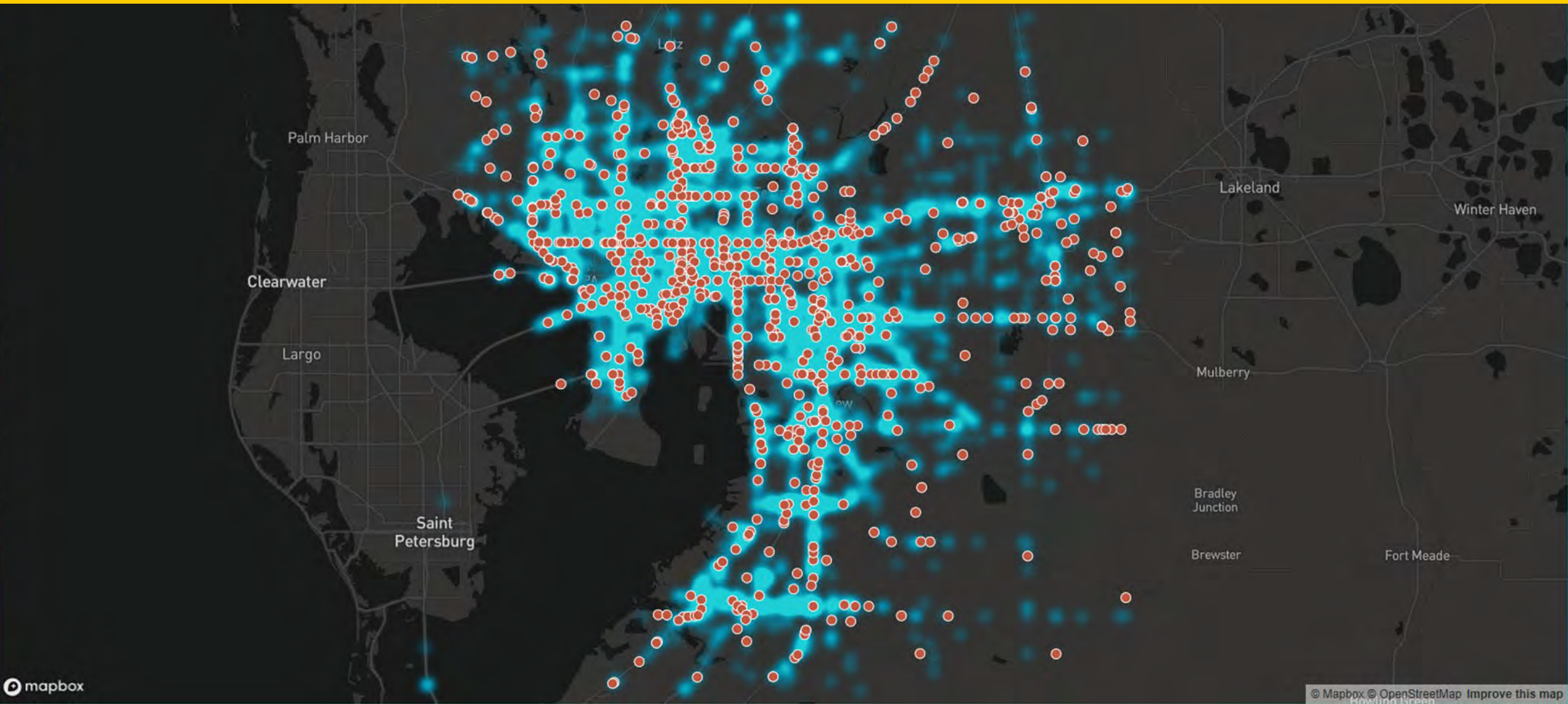

Toronto Center for Active Transportation tcat.ca


Bikewalkkc.org


Rockford, IL

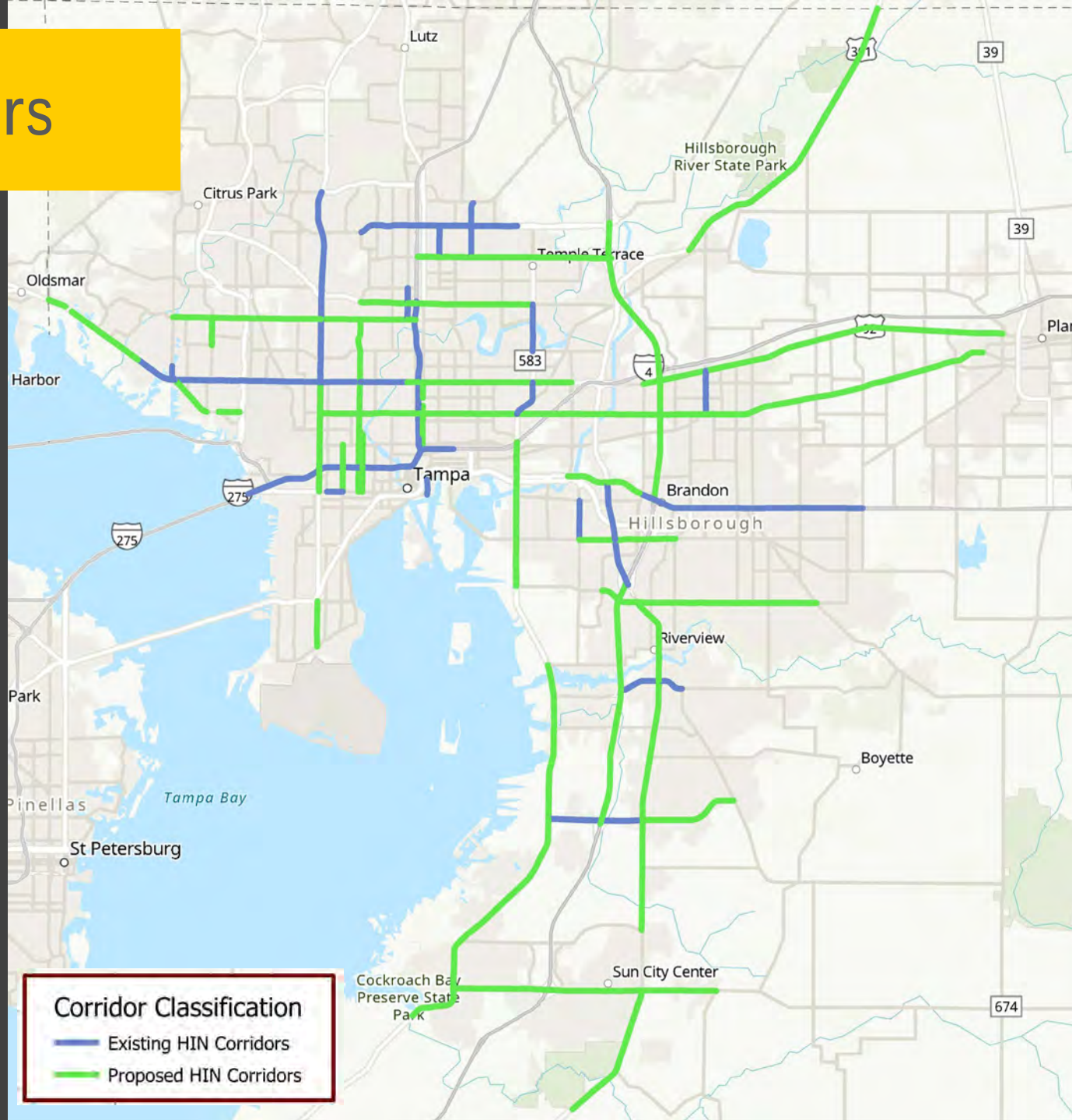
Fatal + Serious Injury Crashes

(Jan 2014-Dec 2018)



Next30 High Injury Corridors

Bloomingdale Ave - US Hwy 301 to Lithia Pinecrest Rd
US Hwy 41 - Gulf City Rd to Riverview Dr
US Hwy 301 - 19th Ave to Bloomingdale Ave
M L King Blvd - Dale Mabry Hwy to Parson Ave
US Hwy 41 - Madison Ave to I4
Big Bend Rd - I75 to Balm Riverview Rd
Busch Blvd - Armenia Ave to 56th Street
SR 674 (Sun City Ctr Blvd) - US Hwy 41 to CR579
I-75 - SR 60 to Fletcher Ave
Hillsborough Ave - Florida Ave to Orient Rd
Waters Ave - Sheldon Road to Dale Mabry Hwy
Fowler Ave - I275 to I75
US Hwy 301 - SR 674 to Lightfoot Rd
I-75 - Big Bend Rd to US Hwy 301
SR 60 /Adamo Dr - Orient Rd to Falkenburg Rd
Causeway Blvd - 78th St to Providence Rd
Waters Ave - Dale Mabry Hwy to Nebraska Ave
Progress Blvd - Falkenburg Rd to US Hwy 301
Hillsborough Ave - Race Track Rd to Longboat Blvd
Memorial Hwy - Hillsborough Ave to Veterans Expwy
Hanley Rd - Woodbridge Blvd to Waters Ave
Dale Mabry Hwy - Interbay Blvd to Gandy Blvd
Howard Ave - Kennedy Blvd to Tampa Bay Blvd
Dale Mabry Hwy - Kennedy Blvd to Hillsborough Ave
US Hwy 92 - Falkenburg Rd to Thonotosassa Rd
Nebraska Ave - Columbus Ave to Hillsborough Ave
US Hwy 301 - Stacy Rd to County Line
Armenia Ave - Tampa Bay Blvd to Waters Ave
MacDill Ave - Kennedy Blvd to Columbus Dr
M L King Blvd - McIntosh Rd to Sammonds Rd



Next 30 - High Injury Corridors Priority Matrix

Corridor and Extent		Crash Severity / Mile	Schools / Mile	Equity CoC Coverage	Posted Speed – Context Class Conflict	High Volumes	
Bloomingdale Ave	US Hwy 301 to Lithia Pinecrest Rd	●	●	○	●	◑	4.0
US Hwy 41	Gulf City Rd to Riverview Dr	●	◑	◑	●	○	2.0
US Hwy 301	19th Ave to Bloomingdale Ave	●	●	○	●	◑	4.0
M L King Blvd	Dale Mabry Hwy to Parson Ave	●	●	●	●	○	3.3
US Hwy 41	Madison Ave to I4	●	○	◑	●	◑	3.3
Big Bend Rd	I75 to Balm Riverview Rd	●	●	○	●	○	3.7
Busch Blvd	Armenia Ave to 56th Street	●	●	●	●	○	4.7
SR 674 (Sun City Ctr Blvd)	US Hwy 41 to CR579	●	◑	◑	●	○	3.7
I-75	SR 60 to Fletcher Ave	●	○	◑	○	●	3.0
Hillsborough Ave	Florida Ave to Orient Rd	●	◑	◑	◑	◑	3.0
Waters Ave	Sheldon Road to Dale Mabry Hwy	●	◑	●	●	◑	4.3
Fowler Ave	I275 to I75	●	●	●	●	◑	4.7
US Hwy 301	SR 674 to Lightfoot Rd	●	◑	○	●	○	3.3
I-75	Big Bend Rd to US Hwy 301	◑	◑	○	○	●	2.0
SR 60 / Adamo Dr	Orient Rd to Falkenburg Rd	◑	○	○	●	◑	3.0

Corridor and Extent		Crash Severity / Mile	Schools / Mile	Equity CoC Coverage	Posted Speed – Context Class Conflict	High Volumes	
Causeway Blvd	78th St to Providence Rd	◑	◑	◑	●	◑	3.7
Waters Ave	Dale Mabry Hwy to Nebraska Ave	◑	◑	◑	●	○	3.3
Progress Blvd	Falkenburg Rd to US Hwy 301	◑	●	○	●	○	3.3
Hillsborough Ave	Race Track Rd to Longboat Blvd	◑	◑	○	●	◑	3.3
Memorial Hwy	Hillsborough Ave to Veterans Expwy	◑	●	○	●	◑	3.7
Hanley Rd	Woodbridge Blvd to Waters Ave	◑	●	○	◑	○	3.0
Dale Mabry Hwy	Interbay Blvd to Gandy Blvd	◑	●	○	●	◑	3.7
Howard Ave	Kennedy Blvd to Tampa Bay Blvd	◑	●	●	◑	○	3.7
Dale Mabry Hwy	Kennedy Blvd to Hillsborough Ave	◑	●	◑	◑	◑	3.7
US Hwy 92	Falkenburg Rd to Thonotosassa Rd	◑	○	◑	◑	○	2.7
Nebraska Ave	Columbus Ave to Hillsborough Ave	◑	●	●	◑	○	3.7
US Hwy 301	Stacy Rd to County Line	◑	○	○	●	○	2.7
Armenia Ave	Tampa Bay Blvd to Waters Ave	◑	●	●	◑	○	3.7
MacDill Ave	Kennedy Blvd to Columbus Dr	◑	●	○	◑	○	3.0
M L King Blvd	McIntosh Rd to Sammonds Rd	◑	○	○	◑	○	2.3

Priority Scoring

- High
- Medium
- Low

Performance Level

- ● High
- ◑ Medium
- ○ Low

Top50 HIN Priority Recap

TASK 5 – Speed Management Action Plan

- Strategies and Countermeasures
- Actions and Implementation Strategy

Vision Zero Principles

HUMAN LIFE AND HEALTH ARE PRIORITIES IN OUR COMMUNITY.

TRAFFIC DEATHS AND SEVERE INJURIES ARE **PREVENTABLE.**

WE ARE HUMAN AND MAKE MISTAKES. THE ROADWAY SYSTEM SHOULD BE DESIGNED TO PROTECT US.

SPEED IS A CRITICAL FACTOR IN CRASH SEVERITY. THE MOST EFFECTIVE APPROACH IS TO SYSTEMATICALLY PRIORITIZE SAFETY OVER SPEED.

RESPONSIBILITY IS SHARED BETWEEN SYSTEM DESIGNERS AND ROAD USERS.

Source: Municipality of Anchorage

Vision Zero Principles

Source: Vision Zero Network

Safe People

Source: City of Tampa- Crosswalks to Classrooms

Aggressive Driving Crash Countermeasures

	Area Type			Location Type			Effects		
Countermeasure	Urban (C4,C5,C6)	Suburban (C3)	Rural (C1-C2)	Intersection	Slow Street	Arterial / Corridor	Crash Reducing	Speed Reducing	Severity Reducing
Safe People Walking or Bicycling:									
Pedestrian Crossing - High Visibility	✓	✓	✓	✓	✓	✓	✓	✓	✓
Raised Pedestrian Crossing	✓	✓		✓	✓	✓		✓	✓
Sidewalks Required on both sides	✓	✓		✓	✓	✓	✓		✓
Sidewalks (8 foot min standard)	✓	✓		✓	✓	✓	✓		✓
Sidewalk Seperation (from travel lanes)	✓	✓	✓	✓	✓	✓	✓		✓
Mid-Block Pedestrian Crossing/Short Blocks	✓	✓			✓	✓	✓	✓	✓
Refuge Islands (raised/painted)	✓	✓		✓	✓	✓	✓	✓	✓
Painted Intersections / Crosswalks	✓	✓		✓	✓	✓		✓	✓
Protected Intersections	✓	✓		✓	✓	✓	✓	✓	✓
Bike Lanes (seperated)	✓	✓		✓	✓		✓	✓	✓
Bike Lanes (protected)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Shade Trees / Landscaping	✓	✓	✓	✓	✓	✓	✓	✓	✓
ADA Curb Ramps	✓	✓	✓	✓	✓	✓	✓	✓	✓
Expand Radius of Safe Routes to School	✓	✓	✓	✓	✓	✓	✓	✓	✓
Work Zone Temporary Facilities	✓	✓		✓	✓	✓	✓	✓	✓
Create Shared / Slow Streets	✓			✓	✓		✓	✓	✓
Re-evaluate Context Class	✓	✓	✓		✓	✓	✓	✓	✓
Re-evaluate Target Speed Limit	✓	✓	✓	✓	✓	✓	✓	✓	✓

Safe Streets

Source: City of Orlando – Complete Streets Policy

Aggressive Driving Crash Countermeasures (cont.)

	Area Type			Location Type			Effects		
Countermeasure	Urban (C4,C5,C6)	Suburban (C3)	Rural (C1-C2)	Intersection	Slow Street	Arterial / Corridor	Crash Reducing	Speed Reducing	Severity Reducing
Safe Streets:									
Chicanes / Lateral Shifts	✓	✓		✓	✓	✓		✓	✓
Full / Half Closure	✓			✓	✓	✓	✓	✓	✓
Lane Width (10 foot standard)	✓	✓		✓	✓	✓	✓	✓	✓
Road Diet (repurpose space)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Gateway Treatement	✓	✓	✓	✓	✓	✓	✓	✓	✓
Roundabout	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mini Traffic Circle	✓	✓	✓	✓	✓		✓	✓	✓
Speed Tables/Raised Intersections	✓	✓		✓	✓	✓		✓	✓
Bulb Outs	✓	✓	✓	✓	✓	✓	✓	✓	✓
Corner Radii / Radius Reduction	✓	✓	✓	✓	✓	✓		✓	✓
Centerline Hardening	✓	✓		✓	✓	✓	✓	✓	✓
Eliminate Acceleration Lanes	✓	✓		✓	✓	✓	✓	✓	✓
Eliminate Deceleration Lanes	✓	✓		✓	✓	✓		✓	✓
Eliminate Right Turn Channelization	✓	✓		✓	✓	✓	✓	✓	✓
On-Street Parking	✓	✓			✓	✓		✓	✓
Tactical Urbanism-Quick Fixes	✓	✓	✓	✓	✓	✓	✓	✓	✓
Provide Street / Pedestrian Lighting	✓	✓		✓	✓	✓	✓	✓	✓
Convert to Two-Way Streets	✓	✓	✓		✓	✓		✓	✓
Enhanced Curve Delineation	✓	✓	✓		✓	✓	✓	✓	✓
Optical Speed Bars/ Converging Chevrons	✓	✓	✓			✓	✓	✓	✓
Re-evaluate Context Class	✓	✓	✓	✓	✓	✓	✓	✓	✓
Re-evaluate Target Speed Limit	✓	✓	✓		✓	✓	✓	✓	✓

Aggressive Driving Crash Countermeasures (cont.)

	Area Type			Location Type			Effects		
Countermeasure	Urban (C4,C5,C6)	Suburban (C3)	Rural (C1-C2)	Intersection	Slow Street	Arterial / Corridor	Crash Reducing	Speed Reducing	Severity Reducing
Safe Freeway Interchanges:									
Eliminate Acceleration Lanes	✓	✓	✓		✓	✓	✓	✓	✓
Redesign High Speed Exit Ramps	✓	✓	✓		✓	✓	✓	✓	✓
Redesign High Speed On-Ramps	✓	✓	✓		✓	✓	✓	✓	✓
Transverse(in lane) Rumble Strips	✓	✓	✓		✓	✓	✓	✓	✓
Provide Safe Continuous Bike Lanes	✓	✓			✓	✓	✓	✓	✓
Provide Safe Pedestrian Crossings	✓	✓			✓	✓	✓	✓	✓
Re-evaluate Context Class	✓	✓	✓	✓	✓	✓	✓	✓	✓
Re-evaluate Target Speed Limit	✓	✓	✓		✓	✓	✓	✓	✓
Safe Traffic Operations:									
Lower Speed Limits	✓	✓	✓		✓	✓	✓	✓	✓
Add New Signals / Improve Connectivity	✓	✓	✓	✓	✓	✓		✓	✓
Protected-only Left Turn Signal Phasing	✓	✓	✓	✓	✓	✓	✓	✓	✓
Signal Coordination-Target Speed	✓	✓		✓	✓	✓	✓	✓	✓
Variable Speed Limits (Expressways)	✓	✓						✓	✓
Driver Feedback Signs - Speed	✓	✓	✓		✓	✓	✓	✓	✓
Leading Pedestrian Interval	✓			✓	✓	✓	✓	✓	✓
Rectangular Rapid Flashing Beacon	✓	✓		✓	✓	✓	✓	✓	✓
Hybrid Ped Beacon / HAWK	✓	✓		✓	✓	✓	✓	✓	✓
Rest in Red Signal Operation	✓	✓	✓	✓	✓	✓	✓	✓	✓
Advanced Speed Detection Signals	✓	✓	✓	✓	✓	✓	✓	✓	✓
Shorter Signal Cycle Lengths	✓	✓	✓	✓	✓	✓	✓	✓	✓
Traffic Signal- Demand Responsive off-peak	✓	✓	✓	✓	✓	✓	✓	✓	✓
Street Lighting / Pedestrian Level Lighting	✓	✓	✓	✓	✓	✓	✓	✓	✓
Update Pedestrian Countdown Timers	✓	✓	✓	✓	✓	✓	✓	✓	✓
Re-evaluate Context Class	✓	✓	✓	✓	✓	✓	✓	✓	✓
Re-evaluate Target Speed Limit	✓	✓	✓		✓	✓	✓	✓	✓

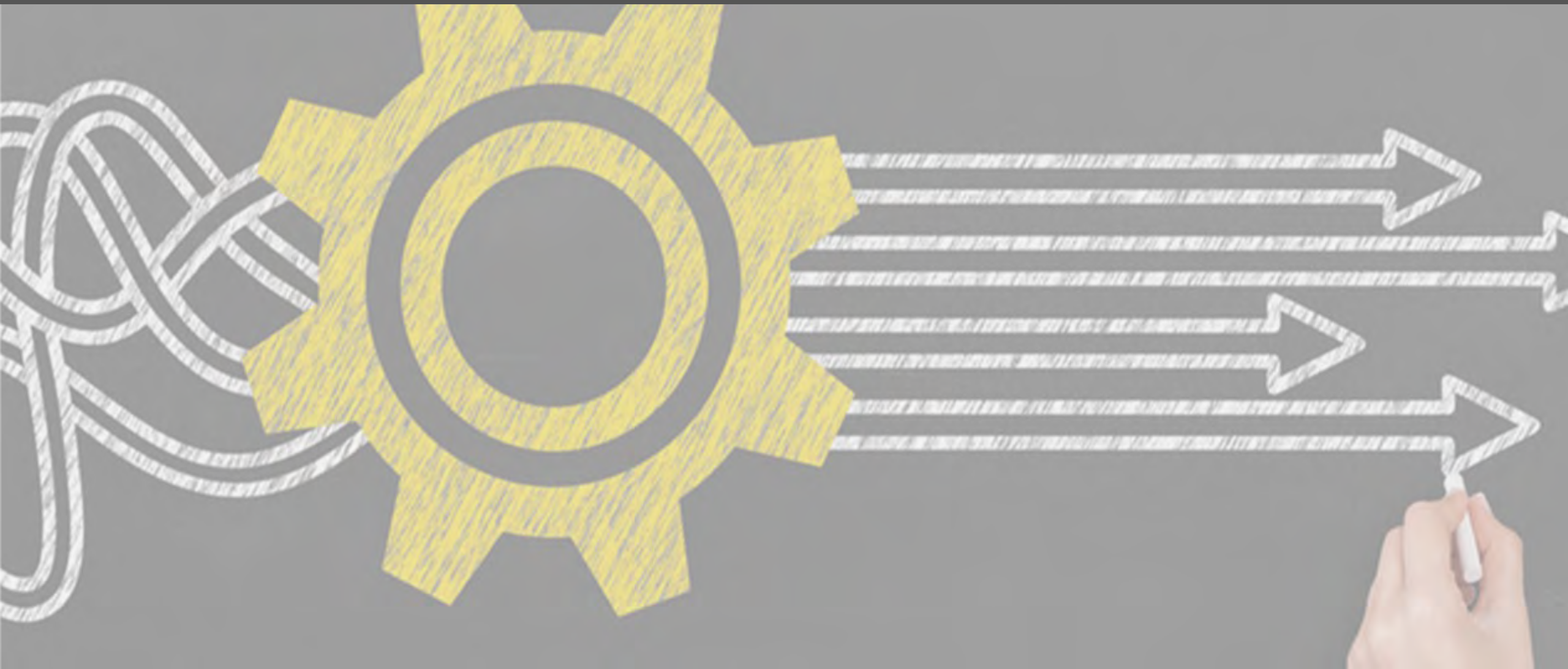
Safe Speeds

Aggressive Driving Crash Countermeasures (cont.)

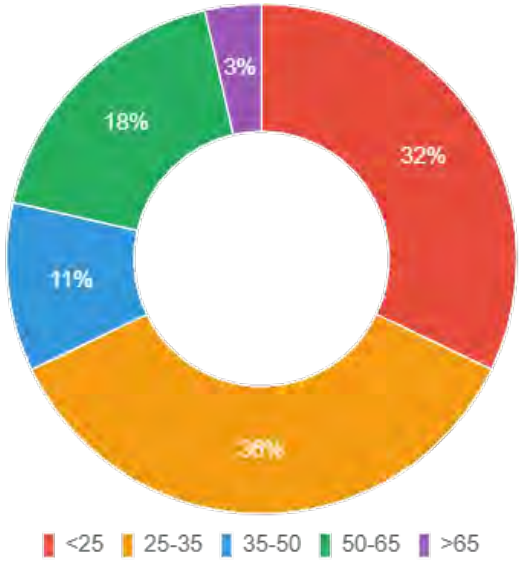
	Area Type			Location Type			Effects		
Countermeasure	**Urban (C4,C5,C6)**	**Suburban (C3)**	**Rural (C1-C2)**	**Intersection**	**Slow Street**	**Arterial / Corridor**	**Crash Reducing**	**Speed Reducing**	**Severity Reducing**
Targetted Enforcement:									
Automated Section Speed Enforcement	✓	✓	✓		✓	✓	✓	✓	✓
Mobile Speed Camera Enforcement	✓	✓	✓	✓	✓	✓	✓	✓	✓
Red Light Cameras	✓	✓	✓	✓	✓	✓		✓	✓
Targeted Enforcement on High Injury Corridors	✓	✓	✓		✓	✓	✓	✓	✓
Higher Fines on High Injury Corridors	✓	✓	✓		✓	✓	✓	✓	✓
Higher Fines in School/Slow Speed Zones	✓	✓	✓		✓	✓	✓	✓	✓
Education Campaign / PSA:									
Aggressive Driving	✓	✓	✓				✓	✓	✓
Respect for All Users w/Emphasis on Vulnerable	✓	✓	✓				✓	✓	✓
Motorcycle Safety	✓	✓	✓				✓	✓	✓
RRFB's / Hawk Operations	✓	✓	✓				✓	✓	✓
Automated Speed Enforcement	✓	✓	✓				✓	✓	✓
New Pavement Markings/Signs	✓	✓	✓				✓	✓	✓
New Conflict Zone Markings	✓	✓	✓				✓	✓	✓
Target Speed/Coordinated Signals	✓	✓	✓				✓	✓	✓
New Traffic Technology	✓	✓	✓				✓	✓	✓

Countermeasures

Application to Top8 HIN Corridors

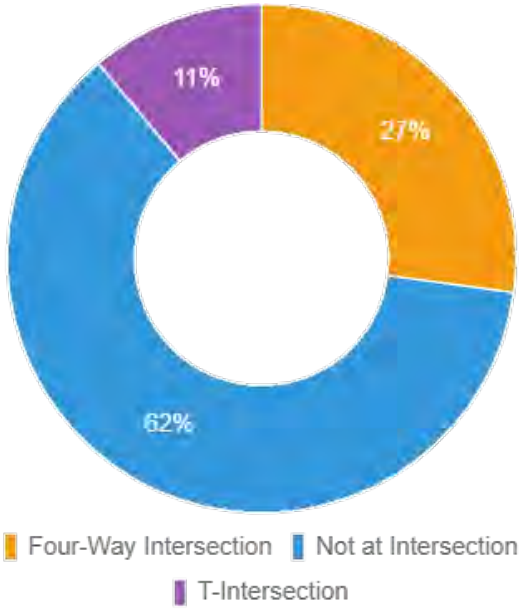


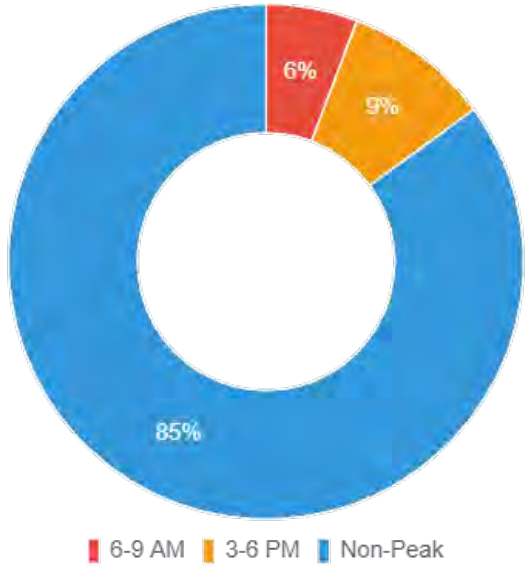
Top8 HIN Corridor - Fatal Crash Characteristics



Fatalities by Age

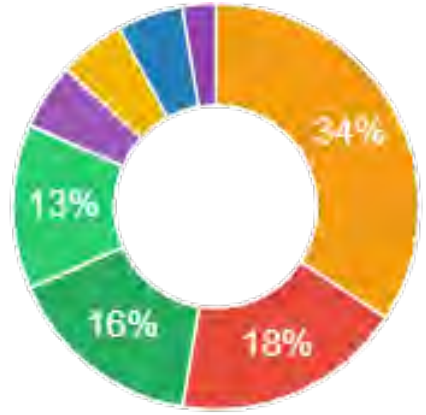
Fatalities by Location





Fatalities by Time of Day

Contributing Factors



Failed to Yield Right-of-Way

Operated MV in Careless or Negligent Manner

Other Contributing Actions

Ran Red Light

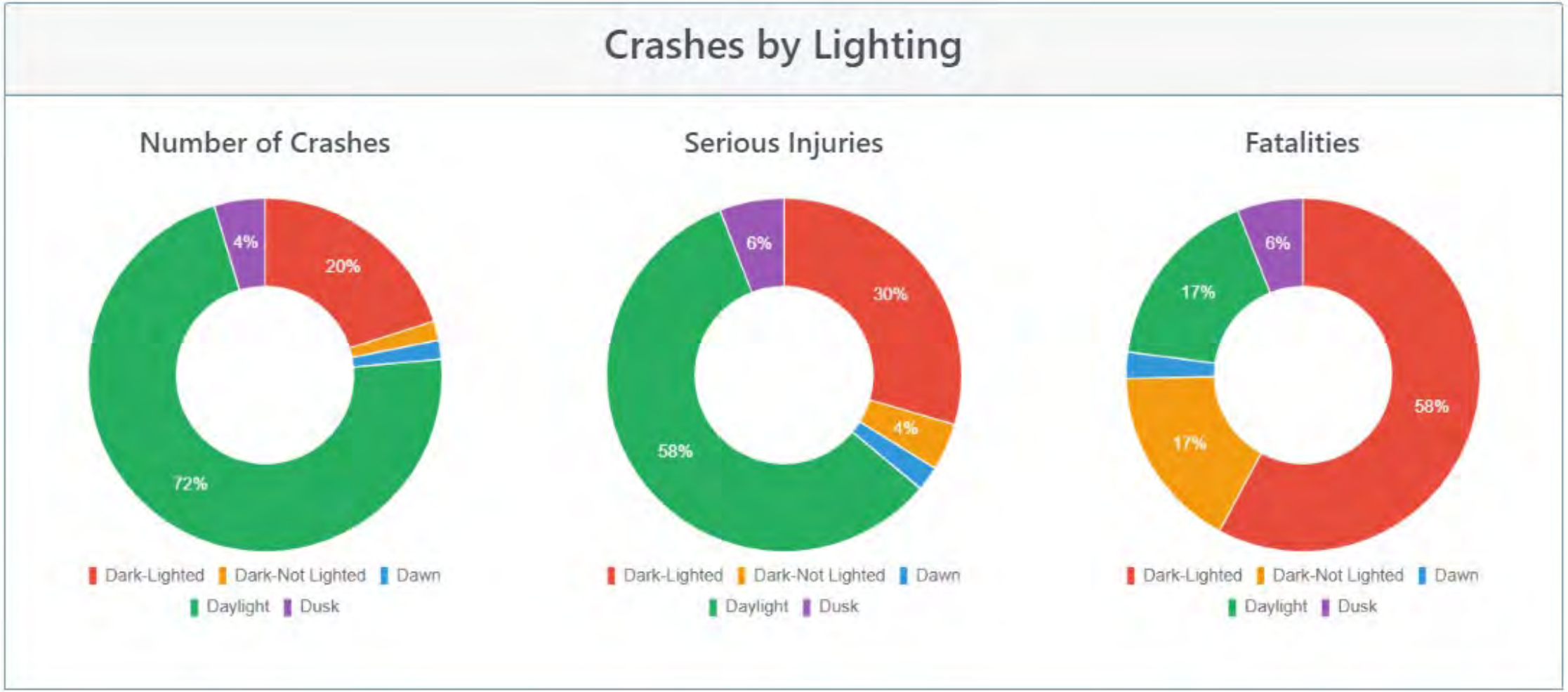
Failed to Keep in Proper Lane

Improper Turn

Operated MV in Erratic Reckless or Aggravated manı

Exceeded Posted Speed

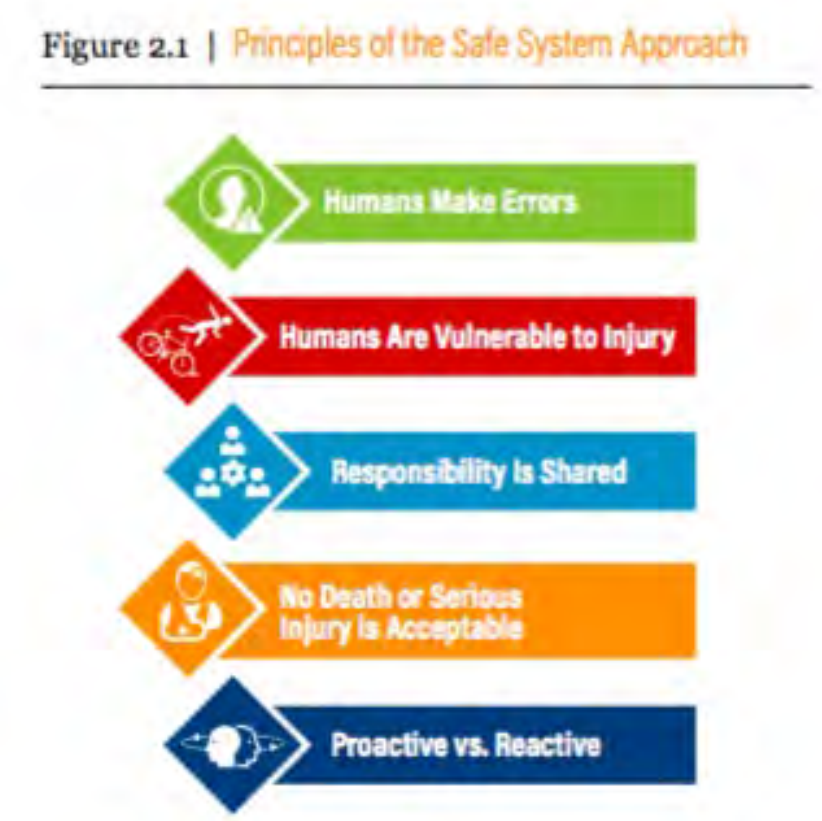
Top8 HIN Corridor Characteristics



Safe Systems Approach

- Holistic view of the road system
- Interactions among roads and roadsides, travel speeds, vehicles and road users
- Inclusive approach for all users
  - Drivers, motorcyclists, passengers, pedestrians, cyclist, and commercial/heavy vehicles
- Speeds must be managed
- Humans are not exposed to impact forces beyond their physical tolerance

Most Importantly, it's proactive vs. reactive



Source: Collaborative Sciences Center for Road Safety

Top 8 HIN Corridor – Cursory Evaluationv

Countermeasure	**Bruce B Downs** (Fowler to Bearss)	**Hillsborough Ave** (Longboat to Florida)	**Dale Mabry** (Hillsborough to Bearss)	**Florida Avenue** (Waters to Linebaugh)	**Brandon Blvd** (Falkenburg to Dover)	**Fletcher Avenue** (Armenia to 50th)	**Sheldon Road** (Hillsborough to Waters)	**Kennedy Blvd** (Dale Mabry to Ashley)
Safe People Walking or Bicycling:								
Pedestrian Crossing - High Visibility	✓	✓	✓	✓	✓	✓	✓	✓
Sidewalks Required on both sides	✓	✓	✓		✓	✓		
Sidewalks (8 foot min standard)	✓	✓	✓	✓	✓	✓	✓	✓
Sidewalk Seperation (from travel lanes)	✓	✓	✓	✓	✓	✓	✓	✓
Mid-Block Pedestrian Crossing/Short Blocks	✓	✓	✓	✓	✓	✓	✓	✓
Refuge Islands (raised/painted)	✓	✓	✓	✓	✓	✓	✓	✓
Bike Lanes (seperated)	✓	✓	✓	✓	✓	✓	✓	✓
Bike Lanes (protected)	✓	✓	✓	✓	✓	✓	✓	✓
Shade Trees / Landscaping	✓	✓	✓	✓	✓	✓	✓	✓
Expand Radius of Safe Routes to School		✓	✓	?	?	?		
Re-evaluate Target Speed Limit	✓	✓	✓	✓	✓	✓	✓	✓
Safe Streets:								
Lane Width (10 foot standard)	✓	✓	✓	✓	✓	✓	✓	✓
Road Diet (repurpose space)	✓	✓	✓	✓	✓	✓	✓	✓
Gateway Treatement	✓	✓	✓	✓	✓	✓	✓	✓
Roundabout	?	?	?	?	?	✓	✓	?
Speed Tables/Raised Intersections	?	?	?	?	?	✓	✓	?
Bulb Outs	✓	✓	✓	✓	✓	✓	✓	✓
Corner Radii / Radius Reduction (+Driveways)	✓	✓	✓	✓	✓	✓	✓	✓
Centerline Hardening	✓	✓	✓	✓	✓	✓	✓	✓
Eliminate Acceleration Lanes	✓	✓	✓			✓		
Eliminate Deceleration Lanes	✓							
Eliminate Right Turn Channelization	✓	✓	✓	✓	✓	✓		
Tactical Urbanism-Quick Fixes	✓	✓	✓	✓	✓	✓	✓	✓
Provide Street / Pedestrian Lighting	?	?	?	?	?	?	✓	?

Examples

W Hillsborough Ave @ Town N Country Blvd

Major Corridor w/ 45-50 MPH posted speed

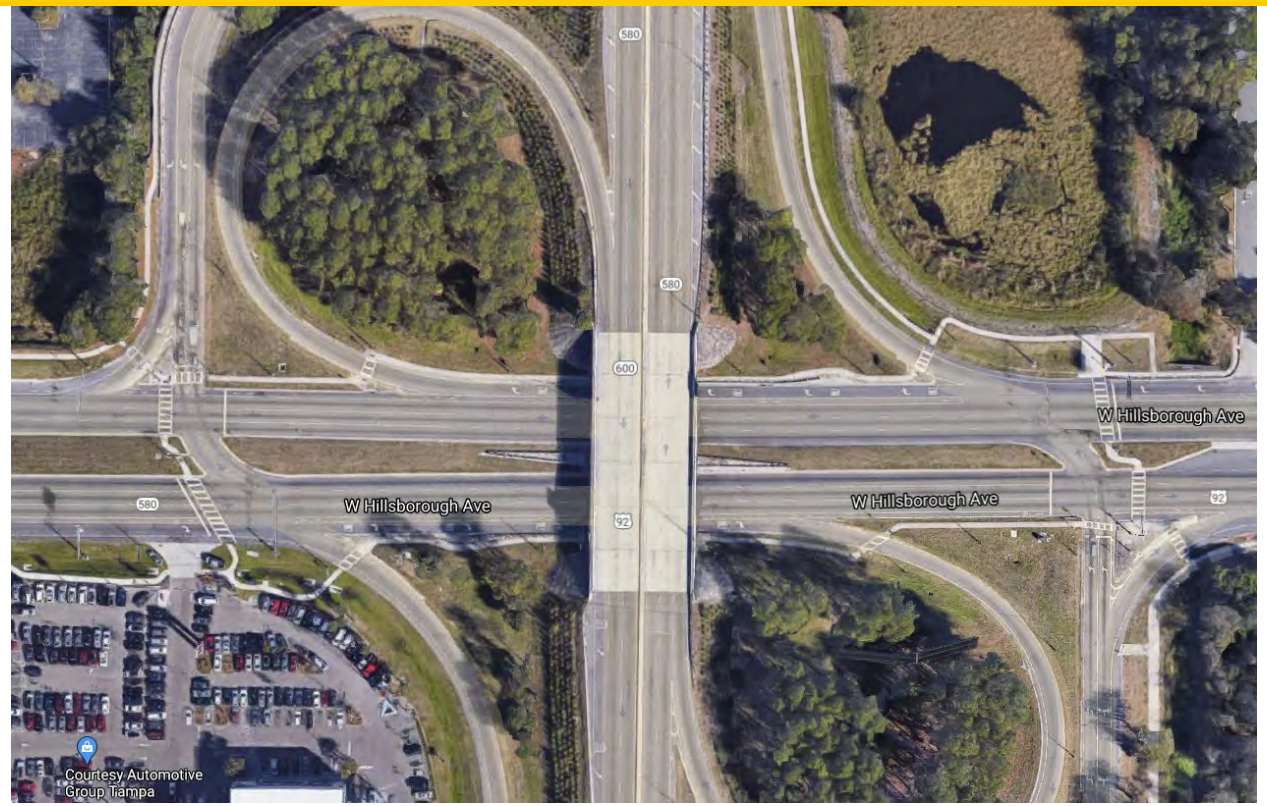
- No high visibility crossings
- Only three pedestrian crossings
- Large turning radii
- High speed right turn lane

Dale Mabry Highway @ Floyd Road

Major Corridor w/ 45 MPH posted speed

- Two Bus stop locations
- No crossings
- Large turning radii
- High speed right turn lanes

Examples



W Hillsborough Ave @ Dale Mabry Highway

Major Corridor w/ 45-50 MPH posted speed

- Circuitous pedestrian crossings
- Bicycle multi-threat conflict zones
- High speed acceleration/deceleration lanes

Dale Mabry Highway @ Lambright St

Major Corridor w/ 45 MPH posted speed

- High Visibility Crossings 150’ across
- No refuge islands
- Large turning radii
- No centerline hardening

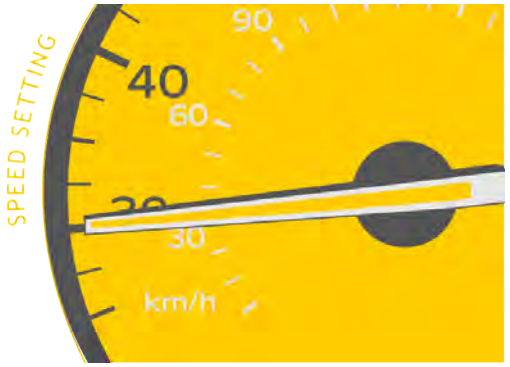
Top 8 HIN Corridor – Cursory Evaluation

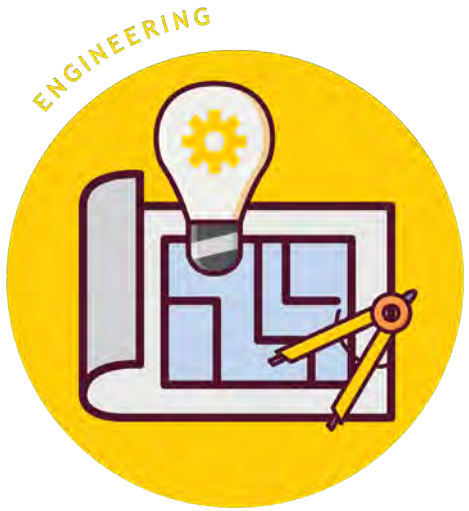
Countermeasure	**Bruce B Downs** (Fowler to Bearss)	**Hillsborough Ave** (Longboat to Florida)	**Dale Mabry** (Hillsborough to Bearss)	**Florida Avenue** (Waters to Linebaugh)	**Brandon Blvd** (Falkenburg to Dover)	**Fletcher Avenue** (Armenia to 50th)	**Sheldon Road** (Hillsborough to Waters)	**Kennedy Blvd** (Dale Mabry to Ashley)
Safe Freeway Interchanges:								
Eliminate Acceleration Lanes		✓						
Redesign High Speed Exit Ramps		✓			✓	✓		
Redesign High Speed On-Ramps		✓			✓	✓		
Transverse(in lane) Rumble Strips		✓			✓	✓		
Provide Safe Continuous Bike Lanes		✓			✓	✓		
Provide Safe Pedestrian Crossings					✓			
Safe Traffic Operations:								
Lower Speed Limits	✓	✓	✓	✓	✓	✓	✓	✓
Add New Signals / Improve Connectivity	✓	✓	✓	✓	✓	✓	✓	✓
Signal Coordination-Target Speed	✓	✓	✓	✓	✓	✓	✓	✓
Driver Feedback Signs - Speed	✓	✓	✓	✓	✓	✓	✓	✓
Leading Pedestrian Interval	✓	✓	✓	✓	✓	✓	✓	✓
Rectangular Rapid Flashing Beacon	✓	✓	✓	✓	✓	✓	✓	✓
Hybrid Ped Beacon / HAWK	✓	✓	✓	✓	✓	✓	✓	✓
Rest in Red Signal Operation	✓	✓	✓	✓	✓	✓	✓	✓
Advanced Speed Detection Signals	✓	✓	✓	✓	✓	✓	✓	✓
Traffic Signal- Demand Responsive off-peak	✓	✓	✓	✓	✓	✓	✓	✓
Update Pedestrian Countdown Timers	✓	✓	✓	✓	✓	✓	✓	✓
Automated Speed Enforcement	✓	✓	✓	✓	✓	✓	✓	✓
Red Light Cameras	✓	✓	✓	✓	✓	✓	✓	✓

Targeted Enforcement and Education applicable to ALL HIN Corridors

? Further information/data necessary

Countermeasure Application





Actions and Implementation Strategy

Study Objectives

GOAL

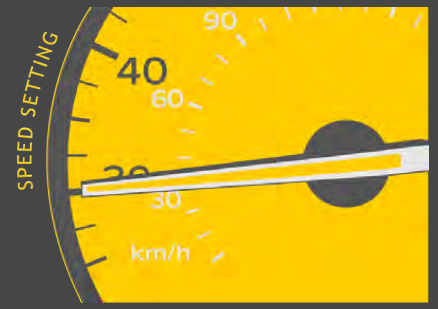
- Improve public health and safety by reducing road fatalities and serious injuries.

DESIRED OUTCOMES

- *Improved safety experience* for all road users - pedestrians, bicyclists, and motorists.
- *Increase awareness* of the dangers of speeding.
- *Institutionalize good practices* in road design, traffic operations, engagement, enforcement and safety.
- Identify *supportive policies, programs and infrastructure* improvements to meet safety goal.
- Obtain *cooperation and support* of stakeholders.

Safe Speeds

Actions and Implementation Strategy - Speed Setting

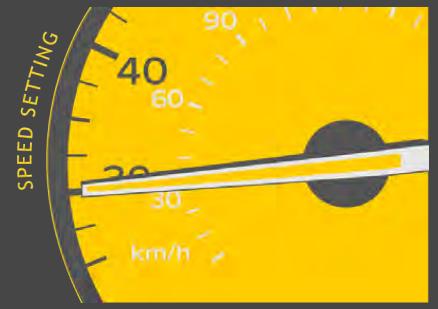


Action 1 – Regional Context Classification

- ✓ Develop and publish Context Class for every street in the county per ITE/ULI speed range guidance
- ✓ Update FDOT Context Class speeds per ITE/ULI best practices
- ✓ Identify corridors with egregious speed limits related to context class
- ✓ Develop process to address and prioritize modifications
- ✓ Review and update regularly per local growth and development plans

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy - Speed Setting

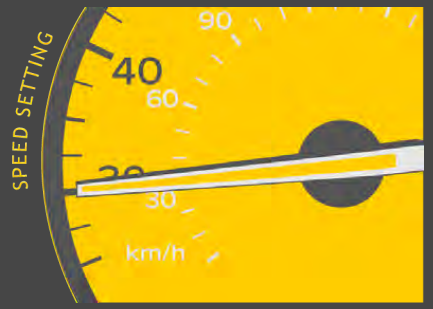


Action 2 – Immediately Evaluate All Projects

- ✓ Per new Context Classifications, evaluate all ongoing projects at State, County and City Levels
- ✓ All projects include: new roads, reconstruction projects, resurfacing projects, operations projects (ITS, signal progression).

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy - Speed Setting Recommendations

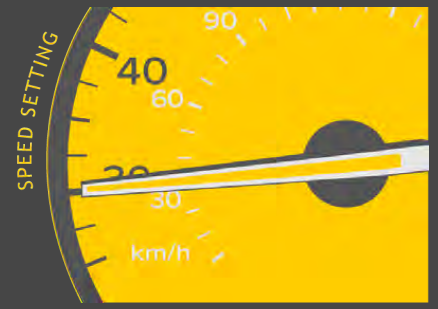


Action 3 - Initiate a HC safety task force to engage on speed limit setting, improve consistency of outcomes, and restore credibility of speed limits. Outcomes:

- ✓ Improve the methodology for determining operating speed per national best practices.
- ✓ Adopt a Safe Systems Approach – Target Speed
- ✓ Discourage the use of the 85th percentile method to set speed limits in urban, suburban and rural town centers.
- ✓ Encourage agencies to establish a max speed limits of:
  - 20MPH on any street within a residential district
  - 25-35MPH on all other streets
- ✓ Provide guidance that address liability and tort barriers

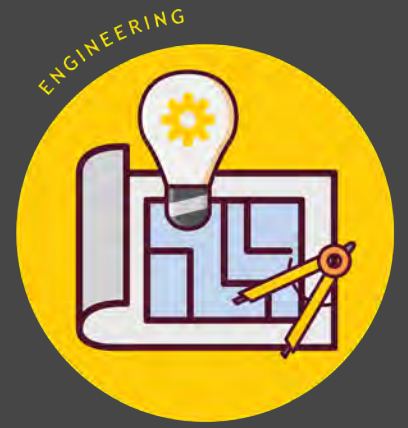
Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy - Speed Setting



- Any actions of concern?
- Any additional strategies or actions?
- Are the time frames reasonable?
- Responsible parties?

Actions and Implementation Strategy - Engineering & Operations

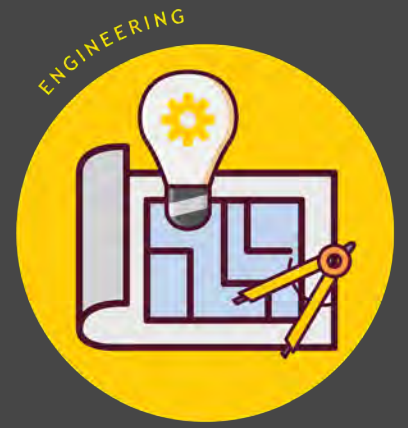


Action 1 - Develop preliminary treatment plans for Top50 High Injury Network corridors.

- ✓ Establish standard scope for all evaluations to ensure consistency.
- ✓ Obtain travel speed for Top50 High Injury Network corridors.
- ✓ Identify feasible countermeasures from the Speed Management resource table.
- ✓ Identify immediate quick fix (Tactical Urbanism) recommendations.
- ✓ Identify longer term recommendations, program and fund.

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy - Engineering & Operations

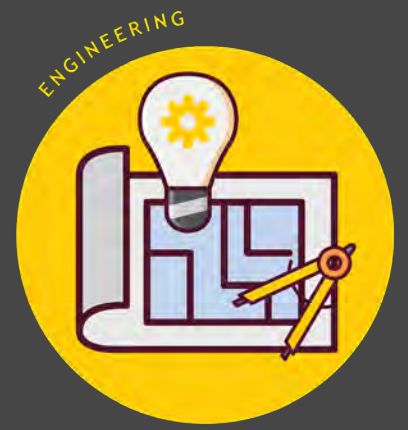


Action 2 – Strengthen Design Manual / Design Standards for roadway construction, operations and maintenance.

- ✓ Reflect the speed management concepts and countermeasures identified.
- ✓ Add more flexibility for multimodal design needs.
- ✓ Discourage overdesigning for future motor vehicle capacity where such design would encourage higher operating speeds.
- ✓ Include design guidance that is more protective of vulnerable users where variable speeds (transition areas) and where land use destinations suggest current or latent demand for walking and bicycling.

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy - Engineering & Operations

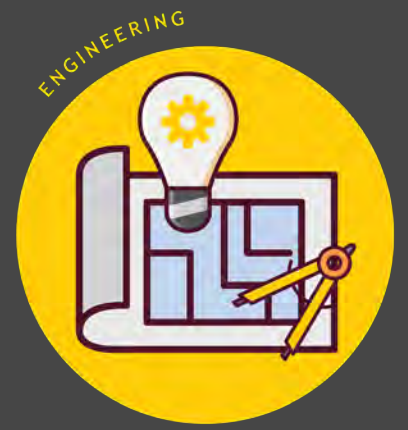


Action 3 – Incorporate design flexibility to reflect state of the art / national best practices.

- ✓ Agencies should be encouraged to adopt and require national best practices on safety, vision zero and speed management (ITE, NACTO, Vision Zero Network, etc.)
- ✓ Update FDOT Street Design Standards - Replace "warrant" requirements with "guidelines" per FHWA principals. Especially in justification for pedestrian crossings and signals in high pedestrian areas, and school zones.

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy - Engineering & Operations

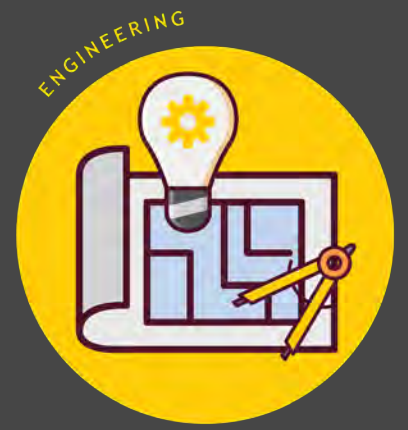


Action 4 – Establish Local Street Design Guidelines

- ✓ Encourage local agencies City and County to establish context sensitive design guidelines.
- ✓ Ensure prioritization of transportation modes for vulnerable users. People first design approach.
- ✓ Ensure close coordination and refinement of land use / zoning / development regulations.
- ✓ Encourage adoption of local agency ordinances/policies that would require developers to meet safety and speed management in new street design.

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy - Engineering & Operations

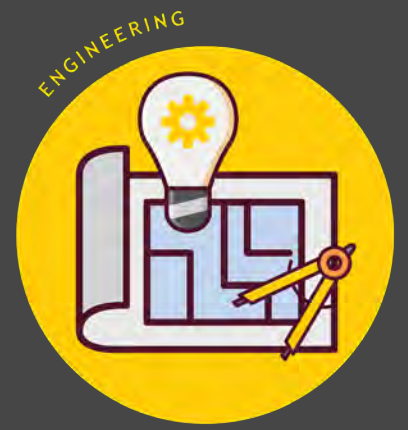


Action 5 – Traffic Operations Recommendations

- ✓ Where operating speeds exceeds the context classification ranges, identify and install the appropriate traffic control countermeasures.
- ✓ Expand the use of automated traffic safety cameras in school zones, at traffic signals, and other locations that maybe approved under statute.
- ✓ Use signal timing to manage traffic flow for compliance with target speeds.
- ✓ Use radar feedback signs and messaging to help public understand that the speed limit is the upper limit.

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy - Engineering & Operations

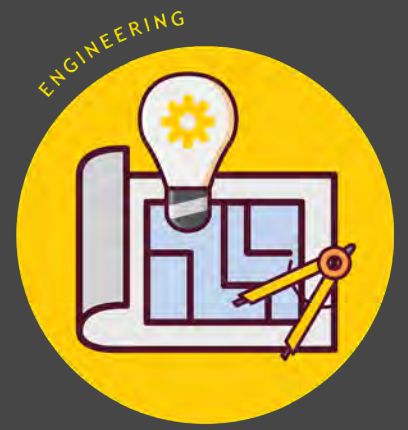


Action 6 – Professional Development and Training

- ✓ Provide educational opportunities for professionals, public officials on speed management principles, importance of vehicle speed and injury severity.
- ✓ Provide training on relationship between 85th percentile operating speed and the effect of increasing speed limits on fatal and serious injury crashes, versus less severe crashes.
- ✓ Provide training on speed management and land use/zoning/development decisions.
- ✓ Provide educational opportunities on how to determine which streets need traffic calming techniques.

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy - Engineering & Operations

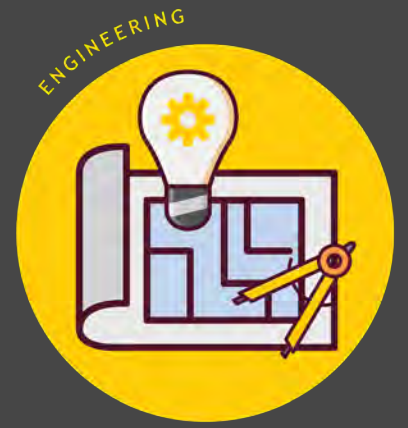


Action 7 – Fund Improvements to Achieve Speed Management Goals

- ✓ Inventory current and future sources of funding for safety and speed management.
- ✓ Reprioritize funding for safety and speed management projects.
- ✓ Encourage competitive grant programs (safety programs, SRTS and Ped/Bicycle Safety Programs) to make speed management practices eligible for funding and add speed management consideration in selection criteria.
- ✓ Identify and pursue opportunities to incorporate speed management treatments with other projects.

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy - Engineering & Operations



Action 8 – Collaborate with law enforcement, firefighting and other emergency response professionals to generate support for Safety and Speed Management goals and implementation.

- ✓ Potential issues may include:
  - ✓ Enforcement preference for multiple lanes so they have a lane to work in;
  - ✓ Grid verses cul-de-sac issues;
  - ✓ Lane width;
  - ✓ On-Street parking value as friction for speed management

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy - Engineering & Operations

- Any actions of concern?
- Any additional strategies or actions?
- Are the time frames reasonable?
- Responsible parties?

Actions and Implementation Strategy – Education and Enforcement

Action 1 – Educate the Public and Elected Officials

- ✓ Encourage public health and traffic safety partners to educate the public and elected officials about the importance of speed management and injury minimization.
- ✓ Create a one-page injury minimization and speed management that is easy to read and understand for decision makers (one for city and one for county).
- ✓ Apply principles of multicultural communication means to prepare and share traffic safety educational materials.
- ✓ Educate drivers by using advertising, updates to school curriculum and driver's education programs.

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy – Education and Enforcement

Action 2 – Develop Education Messages

- ✓ Encourage proper road use behavior by all road users
- ✓ Explain how and why injury minimization speed limit methodology is used to inform of the purpose and goals of the speed management approach.
- ✓ Obtain public understanding and support to prevent / reduce road rage and support positive traffic safety culture in communities.
- ✓ Inform the general public about the importance of using appropriate lower speed limits to save lives and achieve Vision Zero goals.

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy – Education and Enforcement

Action 3 – Draw on local resources and partners to develop community-based public awareness and education.

- ✓ Ensure that speed limits, including statutory maximums, are well-communicated to drivers.
- ✓ Improve and increase communications about the safety reasons for effective policies and strategies.
- ✓ Increase publicity and visibility of enforcement to enhance deterrent effects.
- ✓ Target education and outreach when speed limit or street design changes occur.

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy – Education and Enforcement

Action 4 – Encourage Elected officials to adopt Speed Management Policy

- ✓ Replicate steps used to encourage adoption of Complete Streets Policies, in a way that will inform the community and get support from elected officials.
- ✓ Create a one-page concise page that shows how injury minimization efforts support Complete Streets principles for staff and elected officials to use in response to public concerns.
- ✓ Encourage the integration of speed management into Complete Streets policies.

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy – Education and Enforcement

Action 5 - Establish safeguards against inequitable enforcement practices.

- ✓ Before undertaking enforcement emphasis campaigns, provide training on equity issues for law enforcement and encourage work with cultural ambassadors in diverse communities.
- ✓ Primarily issuing warnings and educational materials rather than citations, early on in new programs.
- ✓ Ensure all outreach materials are bilingual, at a minimum.
- ✓ Establishing metrics to continuously evaluate equity within program activities.

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy – Education and Enforcement

Action 6 – Enforcement Recommendations

- ✓ Encourage enforcement efforts to address the top 10% of aggressive driver behaviors on HIN network corridors.
- ✓ Expand the use of automated speed enforcement in school zones.
- ✓ Encourage better posted and impact speed documentation in crash data reports.
- ✓ Design escalating enforcement campaigns
- ✓ Designate “speed awareness zones” with higher fines for aggressive driving violations,
- ✓ Issue notifications to drivers and encouraging resident-involved speed reduction efforts.

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy – Education and Enforcement

- Any actions of concern?
- Any additional strategies or actions?
- Are the time frames reasonable?
- Responsible parties?

Actions and Implementation Strategy – Policy / Legislation

Action 1 – Support Changes to Laws and Regulations as necessary to ensure people are protected to the greatest extent possible.

- ✓ Encourage the change in guidance authorizing agencies to reevaluate speed limits.
- ✓ Discourage the use of the 85th percentile speed setting in urban, suburban and rural town centers.
- ✓ Develop and adopt a Speed Management Policy.
- ✓ Integrate speed management goals in Complete Streets policies.
- ✓ Encourage the use of automated traffic safety cameras for speed management in HIN corridors and school zones.

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy – Policy / Legislation

Action 2 - Set a firm Vision Zero crash reduction Goal

- ✓ Establish parameters to establish a 50% reduction in fatal and serious injury crashes by 2030.
- ✓ Prioritize repurposing existing corridors for all users.
- ✓ Prioritize safety projects in LRTP and UWP to achieve crash reduction goal.
- ✓ Redefine funding objectives to fund safety projects to achieve Vision Zero safety goals.

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy – Policy / Legislation

Action 3 - Develop an inter-agency speed and safety review process to assess land use and transportation plans, designs, and implemented projects. That will:

- ✓ Leverage parallel programs and initiatives where there are shared objectives and priorities.
- ✓ Coordinate land use and transportation plans in setting speed limits and street design characteristics.
- ✓ Set or revise speed limits early in the new project planning process.
- ✓ Conduct road safety audits of all new, pending and maintenance and operations projects.

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy – Policy / Legislation

Action 4 – Review and update Land Use Policies - ensure walkable, safe, and healthy communities.

- ✓ Ensure mixed-use development patterns
- ✓ Ensure grid street system to improve connectivity
- ✓ Ensure multi-modal infrastructure is required of all developments
- ✓ Maximize the number of entry points to subdivisions
- ✓ Ensure self enforcing street design
- ✓ Integrate neighborhood schools with safe access

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy – Policy / Legislation

Action 5 – Review and Initiate Traffic Safety Legislation Measures

- ✓ Pull on local partnerships and elected political officials to formulate a plan of action to address current and future traffic safety legislative needs, including but not limited to:
  - ✓ The need to update statutory speed setting legislation
  - ✓ State authority to utilize Automated Speed Enforcement
  - ✓ Initiate the need for a state Motorcycle Helmet Law
  - ✓ Identify other critical safety legislation needs

Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

Actions and Implementation Strategy – Policy / Legislation

- Any actions of concern?
- Any additional strategies or actions?
- Are the time frames reasonable?
- Responsible parties?

Actions and Implementation Strategy – Plan Evaluation

Action 1 – Develop evaluation metrics and timeframes for plan updates.

- ✓ Establish quarterly updates of the Speed Management Action Plan.
- ✓ Establish post-project evaluation measures with qualitative and quantitative approaches, including:
  - ✓ Quantitative measures: speed reduction, crash reduction, serious injury/fatality reduction, and impact on travel time.
  - ✓ Qualitative measures: user observations, surveys

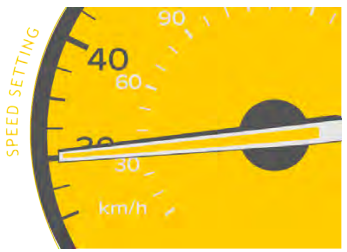
Short Term (1-2 Years)
Mid Term (3-5 years)
Long Term (5+ years)

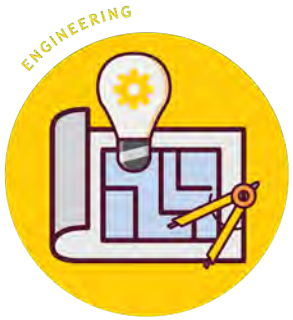
Actions and Implementation Strategy – Plan Evaluation

- Any actions of concern?
- Any additional strategies or actions?
- Are the time frames reasonable?
- Responsible parties?

NEXT STEP

- Finalize Draft Plan
- Presentation to MPO Committees
- Incorporate Feedback
- Finalize Speed Management Action Plan





Hillsborough MPO
Metropolitan Planning for Transportation

THANK YOU!

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Submitted by:

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