Revitalizing Sunrise Highway

Active Living: Opportunities to Transform the Built Environment

Walkable and Livable Communities Institute
AARP New York

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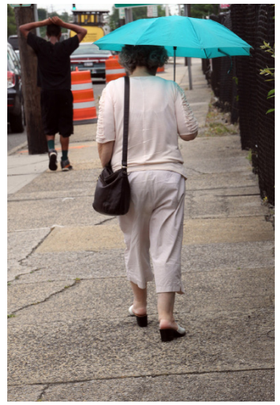
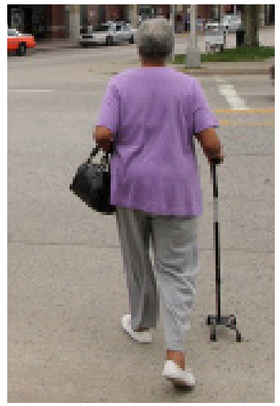




Why **Transform the Built Environment?**

For too many years America's infrastructure to support active transportation—sidewalks, trails, bicycle lanes, bicycle parking and public transit—have suffered from a lack of investment. The consequences are congestion, inactivity, obesity, and exposure to air pollution, traffic crashes and loss of economic vitality.

The communities of Valley Stream, Baldwin and Freeport, New York, are all in differing stages of downtown revitalization projects. They each have great "bones" for thriving downtowns in place, including access to MTA Long Island Rail Stations. However, these villages are still being treated as places to pass through, rather than places to come for enjoyment and enterprise. At the heart of the problem is Route 27, also known as Sunrise Highway, an east-west road that extends the length of Long Island from the New York City borough of Brooklyn to the seaside village of Montauk.

Sunrise Highway bisects each of these villages at their most vulnerable and central places, significantly dampening the desire to walk from the neighborhoods into the village downtowns, parks, or train stations. Sunrise Highway reflects conditions across Long Island and in many places around the U.S.: physical activity has been engineered out of daily life due to overly wide roads, high vehicle speeds and a lack of pedestrian and bicycle infrastructure.

Eight pedestrians were killed along Sunrise Highway in Nassau County from 2010-2012, according to a Tri-State Transportation Campaign analysis, and seniors made up half of the pedestrians killed, while they only represent 22 percent of Nassau County's population. Over the same time period, there were 94 collisions involving motorists and pedestrians and 32 collisions involving motorists and bicyclists along Sunrise Highway alone, making it one of the most dangerous corridors for walking in the state of New York. A study by AAA, *Crashes vs. Congestion: What is the Cost to Society*, found that in urbanized areas the total cost of traffic collisions is over three times the cost of congestion--$299 billion for traffic collisions and $97 billion for congestion.

A more balanced transportation system is needed, or these costs will continue to grow and undermine community economic health and quality of life. For example, after slowing traffic and improving bicycling on Valencia Street in San Francisco's Mission district, nearby businesses experienced sales increases of up to 60 percent, which merchants attributed to increased pedestrian and bicycle activity.

A person's decision to walk is influenced by many factors, including distance, perceived safety and comfort, convenience, and the visual interest of the route. Pedestrians feel exposed and vulnerable when walking directly adjacent to a high-speed travel lane. Motor vehicle noise, exhaust and the sensation of large passing vehicles reduces pedestrian comfort. Factors that improve pedestrian comfort include a separation from moving traffic and a reduction in motor vehicle speed. In walkable environments, a buffer zone that improves pedestrian comfort can be achieved through sidewalks or trails, landscaping, bike lanes and on-street parking.

Street treatments reflect our values. If we cherish people, history, culture and 'place', our streets should reflect this. Sunrise Highway, especially within the villages, should be designed to allow for safe and comfortable pedestrian and bicycle travel, as well as motor vehicle travel.

The **Process**

AARP New York, in partnership with Vision Long Island and the Tri-State Transportation Campaign, engaged the Walkable and Livable Communities Institute, a national non-profit, to lead walking audits—or walking workshops—in the villages of Valley Stream, Baldwin and Freeport on June 19, 2014.

Nassau County elected officials, county planning staff, transportation professionals and area residents gathered out of concern that the New York State Department of Transportation had not included input from local communities in the Sunrise Highway safety plan. The walking audits allowed stakeholders to see, feel, hear and discuss together how the design, operation, accessibility and safety of Sunrise Highway and several nearby streets can affect walkability and livability. Together the three villages envisioned the opportunities being recommended on the following pages to make the highway more supportive of all roadway users, including people walking, biking and driving.

Valley Stream Walking Audit Participants

Baldwin Walking Audit Participants

Freeport Walking Audit Participants

Complete the Streets

Policy to Support All Users; Calm Traffic to Improve Safety of All Users

Implement a Complete Streets Policy

Land use and transportation policy can either contribute to or detract from community-building. When thoughtfully integrated, land use and transportation policies and strategies can jointly preserve and even enhance natural and cultural resources and create better built environments that are walkable, livable and sustainable.

A Complete Streets policy ensures that choices are available to the community by making walking, bicycling and public transportation convenient, easy and safe.

New York State passed a Complete Streets Act (Chapter 398, Laws of New York) in August 2011 to amend highway law to enable safe access to public roads for all users by utilizing Complete Streets design principles. "This bill establishes a complete street policy that will consider the needs of all users of our roads by encouraging good planning to benefit a variety of citizens and encourage sustainable communities...This [legislation] would ensure that complete streets design principles are utilized where they would be most needed, most effective, and most beneficial to improve safety for all who use our roadways."

Moving from paper (policy) to practice (implementation) is also key. Complete Streets policies and practices have many benefits, including an improved environment, decreased traffic congestion and collisions, and the preservation of a community's natural assets.

Citizens also benefit, "not only from the environmental advantages derived from a complete street policy, but from the health benefits associated with active forms of transportation," states New York's Complete Streets Act.

Below: Sunrise Highway today is designed primarily for one use—the automobile.

Above: Completing streets for people and 'place' makes sense. Lancaster Boulevard in Lancaster, Calif., underwent a $10 million make-over in 2007. A formerly dilapidated boulevard was transformed into a pedestrian friendly boulevard that has sparked a downtown renaissance, attracting $900 million in private and public investment, adding 800 new housing units, a new Museum of Art & History, and numerous street festivals, including one which drew 40,000 people to the boulevard during the winter holidays. Such results, achieved even during the Great Recession, led the U.S. Environmental Protection Agency to give the City its Overall Excellence in Smart Growth Award in 2012.

Design for Target Speed

Drivers respond to cues that streets provide. Wide travel lanes, inconsistent and worn markings, and other drivers speeding through an area create an environment in which motorists feel entitled to travel through the community at high speeds. Fewer than one-third of drivers drive the speed limit on urban and suburban arterials.

Currently, Sunrise Highway and other local streets encourage speeding, especially through intersections, due to their design. In some areas, sidewalks, bike lanes, and other facilities for supporting active transportation don't exist or need maintenance and upkeep.

The 'design speed', or maximum possible speed, of Sunrise Highway is higher than the posted speed limit overall. Drivers have a hard time obeying posted speed limits when the design speed encourages different behaviors.

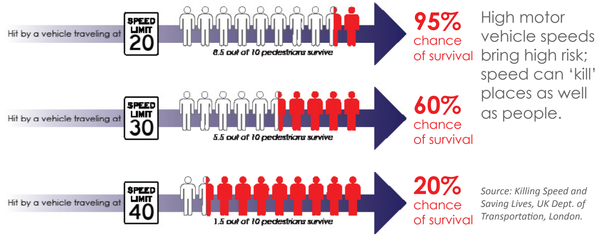
To foster a walkable—safe, convenient, comfortable, and lower noise—Sunrise Highway, set a 'target speed' of 30 mph within the villages.

The foundation to designing streets that honor communities—people and places—begins with addressing the appropriate 'target speed'. Also known as the 'desired operating speed' of a street, 'target speed' is the speed desired on the roadway to ensure that all modes (automobile traffic, transit, freight/delivery, pedestrians, and bicyclists) can operate efficiently, effectively, safely, and with enjoyment. Designing streets to a target speed means including only those design elements that best reflect the context—function, land uses, community values, etc.—of the roadway.

Start to transform Sunrise Highway and other streets through target speed, by applying street treatments *(beginning next page)* that help to calm traffic and transform the built environment to support all modes of transportation.

Nearly everyone, for at least some portion of each trip, is a pedestrian, even walking to and from a parked car. And pedestrians are more likely to be found in areas where traffic is calm. Thus, where foot traffic is highly desirable, traffic-calming measures should be applied. Start by considering the "proven safety countermeasures" identified by the Federal Highway Administration at http://safety.fhwa.dot.gov/provencountermeasures/, such as modern roundabouts, medians and pedestrian crossing islands.

Also, consider that each village's history and culture can be celebrated though its choice of street treatments.



High motor vehicle speeds bring high risk; speed can 'kill' places as well as people.

Source: Killing Speed and Saving Lives, UK Dept. of Transportation, London.

Traffic-Calming Tools

Short-Term Opportunities

Use Paint

Narrow Travel Lanes

Reduce vehicle travel lanes to 10 feet wide in villages; this should be the default lane width.

The wider a roadway, the faster motor vehicles tend to travel. Wide roadways also make for wide pedestrian crossings, increasing the amount of time a person is exposed to the threat of being hit by a vehicle, and the amount of time that vehicles are waiting for the pedestrian to cross. The same is true with auto-to-auto crashes and bicycling crashes. Studies by the Transportation Research Board reveal that there is a slight improvement in safety when narrower—10 foot—lanes are applied. In addition to lowering vehicle speeds, this practice saves on materials, reduces environmental impacts, adds to vehicular efficiency and performance, and provides physical space for wider sidewalks, or bike lanes, or wider buffers between sidewalks and passing vehicles.

Enhance Crosswalk Markings

High-intensity crosswalk markings benefit all. Different materials can be used to make crossings more visible day and night. Many of the crossings along Sunrise Highway are hard to see or are completely missing, sending conflicting messages to pedestrians and motorists. More-visible markings would send a message that pedestrians should be expected at intersections. The use of materials to create attractive streetscape features can add beauty, function and a sense of 'place', and should enhance the aesthetics, character and integrity of the street. **Crossings should be remarked with high visibility crosswalk markings on all legs of the intersection.**

Above: The redesigned Route 62 in Hamburg, NY narrowed travel lanes from 12 feet wide to 10 feet wide.

Above: At most locations along Sunrise Highway enhancing crosswalks is only a matter of applying ladder-style markings with new paint. To further enhance crossings add 'a median nose', which slightly extends the median.

Reposition Guard Rails

Where guard rails exist they are only protecting the motorist. **A short-term and relatively low-cost fix is to make the guard rails a buffer between moving traffic and people walking.** This also creates a placemaking opportunity; for example, flower planters can be added to further honor and celebrate place.

Right: Today guard rails along Sunrise Highway are placed only to protect motorists; repositioning the guard rails next to the street would improve walking safety. Far Right: Add flower boxes to make buffers more asthetically pleasing, further contributing to a sense of 'place'.

Street Furniture

Adjust Signal Timing

Intersection control devices are critical if walking, bicycling and motoring are to work, and work together. People who cross at intersections, when they are signaled to do so, are most predictable. Drivers appreciate predictable and compliant behaviors from others. When intersections become so complex and challenging that signals are added, there is often ample justification to go beyond outdated practices and address the needs of people walking and bicycling. **Signal timing should be adjusted so that signals recall to WALK automatically during each cycle, minus the clearance interval, especially in areas of high pedestrian activity, such as near transit stations. Ideally, program stoplights to give pedestrians 'lead' time, especially on busy roads, in order to get them partly across the street before motor vehicles begin moving. Also, dedicated left-turn lane signals can precede (lead interval) or follow (lag interval) the pedestrian phase to further increase safety, and there are safety benefits for all (including the motorist) to use the lag (end of cycle), but it is not always possible in some settings.**

Above: In addition to adjusting the signal timing to better include pedestrians and bicyclists, replace current signals with mast-mounted and pole-mounted signal heads.

Bike Racks

Well-placed, sheltered bicycle racks should be located at the transit stations to encourage people to bicycle to the station. Bike racks should also be placed in highly visible downtown areas where they are watched over, but where they won't impact street or sidewalk passage. They can also be placed in curb extensions and tree wells, and even on-street in vehicle parking spaces.

Above: In order to encourage transit users to ride bicycles to the station, covered and well-placed bicycle racks should be placed near the entrance/exit of the station, as seen here in Portland, Ore. Photo via Creative Commons by Flicker user Thomas Le Ngo)

Lighting

Place pedestrian-scale street lighting along travel corridors.

Traffic-Calming Tools

Mid-Range Opportunities

Green the Street

Street Trees

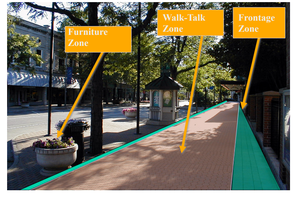
Consider placing tree wells every two to three parking spots, where parking exists along Sunrise Highway, to help bring down speeds by creating a sense of enclosure. When the space is too tight to plant trees in sidewalk areas, in-street tree wells can be used, which greens the street without the removal of parking. Use of tree wells and curb extensions, in combination, helps bring speeds to more appropriate urban levels. **Choose appropriate shade producing trees for the climate.**

Above: Tree wells in Arcadia, Calif., provide shade, inset the parking spaces, and help to create a sense of enclosure— all elements that help to calm traffic.

Other Tools

Sidewalk Design

Sidewalks require appropriate levels of design and care. It is within the protected spaces of a sidewalk where people move freely and spend time engaging others and enjoying public spaces. **Sidewalks work best when they are fully buffered from moving traffic. Buffering sidewalks along Sunrise Highway should become a planning priority.** Color, texture, street furniture and other materials can distinguish functional areas of sidewalks. When building a sidewalk, contractors should be advised that utilizing trowel cuts, rather than saw cuts, creates a better travel surface for wheelchairs and wheeled devices.

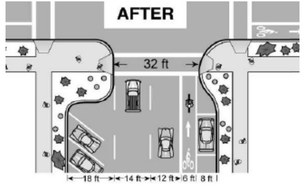


Buffered Sidewalk Edge

Sidewalks of minimum dimensions—less than five feet wide—directly attached to the travel lane should be avoided. The attached sidewalk is common along Sunrise Highway. A buffer is critical to encourage walking by making the sidewalk more comfortable and attractive. The return on investment by adding a buffer is a win-win for all, increasing the social and economic vitality of the street. The sidewalk is the place where people interface with one another and with businesses most directly.

Curb Extensions

Reduce the speed of right-turning motorists, reduce the crossing distance for pedestrians and thus the amount of time motorists have to wait, inset parking spaces, and improve sightlines for all users by installing curb extensions on all corners of the village intersections along Sunrise Highway. Curb extensions are a nearly universal tool for transforming overly wide streets. Curb extensions (also known as bulb-outs) bring down vehicle speeds at right turns, identify important crossings, and make it much easier for people walking, bicycling and driving to see each other. Curb extensions can be used at intersections, mid-block crossings, within parking strips (tree wells) and other locations. Although many curb extensions may be kept plain in appearance, at the entry to a neighborhood they can be landscaped to serve as attractive gateways.



Universal Design, ADA

Paths of travel need to be accessible to all. According to the *2010 Americans with Disabilities Act (ADA) Standards for Accessible Design*, "A 'path of travel' includes a continuous, unobstructed way of pedestrian passage by means of which the area may be approached, entered, and exited, and which connects the area with an exterior approach (including sidewalks, streets, and parking areas)." **It is imperative that ADA requirements are being considered and met.** This is a federal law. To learn more on the most current policies go to www.ada.gov.

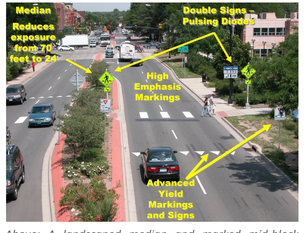
Traffic Calming Tools

Mid-Range Opportunities

Mid-block Crossings

Sunrise Highway has long block form, between 800 to 1,000 feet in length. Mid-block crossings, or median islands, can be used between intersections, typically when blocks are long or in other locations where speeds are higher than desired, or where sight distances are poor. **Identify where pedestrians demonstrate a need for mid-block crossings along Sunrise Highway - these areas should be prioritized for making these improvements.** The basic principle behind a median island is that the pedestrian only has to cross half the roadway at a time, making the crossing much safer. The pedestrian looks left and crosses to the island, then looks right and crosses the second half of the road. Well-designed crossing islands achieve motorist pedestrian-yielding rates above 80 percent!

Above: This photo-vision shows a potential street transformation and mid-block crossing in Yuba City, Calif.



Above: A landscaped median and marked mid-block crossing in Boulder, Colo. Note: the advanced yield bar is placed, at minimum, 30 feet back from the crossing to reduce 'multiple threat' collisions. A multiple threat collision is when one motorist stops to let a person walk across the street, which sets up a blind spot for an approaching vehicle in the next travel lane.

Above: Lincoln Highway in West Sacramento, Calif., is transforming. Today, a tree-lined and landscaped median has been built, including a median nose at a signalized intersection, that helps pedestrians more safely cross six travel lanes.

Reduce Driveway Widths

Too often, driveways are treated like roads, where cars are encouraged to move fast through the space. Where driveways cross sidewalks, the sidewalk instead should be safe and comfortable for people using it. Along Sunrise Highway many driveways are overly wide, which puts pedestrians, bicyclists and motor vehicles in potential conflict with each other for longer periods than necessary. Driveways should encourage slow turning movements. **Account for the largest vehicle, but typically one-way driveways should not exceed 14 feet wide and two-way driveways should not exceed 28 feet wide.**

Left: Many driveways along Sunrise Highway are overly-wide, measuring 40 to 60 feet.

Below: Reduce driveway widths and create high-visibility marked crossings to notify both the motorist and the pedestrian of the intersecting paths of travel.

Traffic-Calming Tools

Long-Range Opportunities

Choosing Safer Intersection Treatments: Roundabouts

Build more compact intersections by applying proven intersection safety treatments such as modern roundabouts, medians with median noses, and pedestrian crossing islands.

Most conflicts between roadway users occur at intersections, where travelers cross each other's path. Good intersection design indicates to those approaching the intersection what they must do and who has to yield or stop. Conflicts for pedestrians and bicyclists are exacerbated due to their greater vulnerability, lesser size, and reduced visibility to other users.

Intersections with high motor vehicle volume, high vehicle speeds, and multi-lane intersections with complex signal phasing or without any traffic controls at all are the most hazardous types of intersections for pedestrians. People on foot may experience difficulty and subject themselves and their children to considerable risk while crossing a street at a poorly designed intersection.

Intersection geometry is a critical element of intersection design, regardless of the type of traffic control treatments used. Geometry sets the basis for how all users traverse intersections and interact with each other. The existing conditions on Sunrise Highway—six travel lanes, dedicated turning lanes, high vehicle speeds and overly-wide corner radii—along with a mix of sub-urban to urban built form and many people on foot observed crossing the road, demands that the intersections are studied and rebuilt to become compact and multi-modal. This will better support all users and the vitality of the villages.

Long-range, create a corridor plan and study the feasibility of converting conventional intersections into true village gateways using modern roundabouts.

The Federal Highway Administration (FHWA) and many state departments of transportation, including the New York Department of Transportation, recognize the operational and safety benefits of utilizing modern roundabouts for intersections. To learn more, visit the FHWA Proven Safety Countermeasures website at: http://safety.fhwa.dot.gov/provencountermeasures/fhwa_sa_12_005.htm

Studies show that roundabouts provide:

- 90% reduction in fatal collisions
- 75% reduction in injury collisions
- 30-40% reduction in pedestrian collisions
- 10% reduction in bicycle collisions

Increased Capacity & Reduced Delay:

- 30-50% increase in traffic capacity
- Less overall delay because drivers can take advantage of gaps in traffic flow

Lower maintenance costs:

- No signal equipment to install, repair and rebuild, which saves $13,000 to $20,000 per year from every intersection
- When storms or human error cause power outages, modern roundabouts still function

Environmental benefits:

- Reduction in pollution and fuel use
- Less noise pollution due to fewer stops and starts

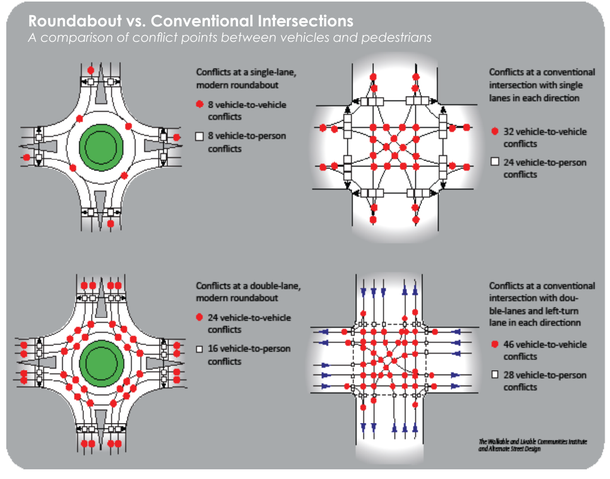
Aesthetics:

- Modern roundabouts improve visual quality and character through landscaping, sculptures and other gateway features that celebrate 'place'

Vehicle speeds (under 25 mph):

- Drivers have more time to judge and react to other vehicles, bicyclists and pedestrians
- Conditions are easier for older and novice drivers
- Businesses have more visible customer exposure
- Reduction in the severity of collisions if they do occur
- All modes are safer and integrate better
- A gateway is formed which establishes 'place' and provides traffic calming benefits

Left: This Clearwater Beach, Fla., two-lane roundabout is one of the busiest in the nation, handling 58,500 motorists daily at peak season, along with 8,500 pedestrians.



Build a Shared Use Path

Build a Shared Use Walking and Bicycling Path Along the North Side of Sunrise Highway

Shared use, or multi-use, paths are a type of trail designed to parallel a major roadway as a part of the transportation system, providing off-road routes for a variety of pedestrians and bicyclists. Shared use paths include a landscaped buffer to safely separate motor vehicle traffic from non-motorized users. Path crossings and intersection designs require special attention. To learn more see the National Association of Transportation Officials (NACTO) design guidelines: http://nacto.org. A mid- to long-range project should be to connect the villages with a shared use path along the north side of Sunrise Highway. Over time, linear buildings or kiosks can line the path to further activate the space and add "eyes on the path."

Below, a photo-vision of a section of Woodward Avenue in Detroit, Mich., transforming the section of Woodward Avenue into a Complete Street with a shared use path.

Below: This shared use path in Davis, Calif., separates pedestrians and bicyclists from moving motorized traffic.

Create a Boulevard

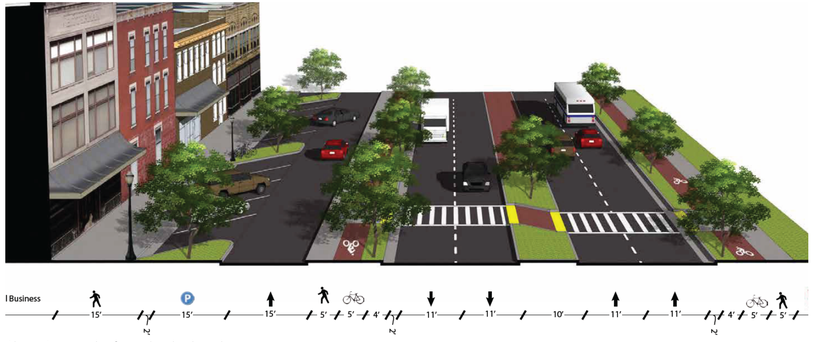
Transform Sunrise Highway into a Boulevard

By the turn of the 20th century many boulevards were built, but due to the emerging highway standards they were redesigned as overbuilt arterials. Today, many communities are restoring their boulevards to better honor people. Boulevards buffer the commercial or residential street edge from the higher-speed through traffic through the use of frontage roads, landscaped medians, shared use paths, seating and other placemaking features.

Sunrise Highway should be transformed into a modern boulevard within the villages.

Boulevards require special attention at the intersections. Poorly designed intersections can cause confusing or unsafe crossings for all street users. Intersections should be designed as a place where all users will want to slow down and share the space. Traffic calming tools such as curb extensions, mini-roundabouts, mini-circles, median noses and well marked crossings should be applied, as appropriate.

Above: This conceptual illustration for the intersection of Rockville Pike and Halpine Road in Rockville, Md., depicts the traffic calming tools used to create a boulevard and gateway intersection that supports all users.



Above: An example of a modern boulevard.

Above: A shared use path runs parallel to this boulevard in Battery Park, New York City.

Above: A well marked intersection with street trees creates a sense of enclosure on this boulevard in Bethesda, Md.