

*Toolkit For
Historic
Roadways*



New Jersey Department of Transportation
Division of Capital Program Support
Bureau of Landscape Architecture and Environmental Solutions
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In recent years, transportation agencies have begun to focus on designing roadway facilities that are more "sensitive" in nature. This sensitivity is a balancing act between the special needs of the infrastructure and its unique location. In response to this challenge, a number of design guidelines, such as Federal Highway Administration's "Flexibility in Highway Design" and the National Cooperative Highway Research Program's Reports 554 ("Aesthetic Concrete Barrier Design"); 612 ("Safe and Aesthetic Design of Urban Roadside Treatments"); and 25-29 ("Guidelines for Design and Management of Historic Road Corridors") have been produced on the National-level. Locally, the New Jersey Department of Transportation (NJDOT) has published "A Special Look" which showcases context sensitive solutions of specific projects.

This **Toolkit for Historic Roadways** was developed to show that the concerns of transportation engineers and historic preservationists are not mutually exclusive. Standard safety details can be married to sensitive designs so that historic properties may continue to tell their story. This Toolkit should not be used as a cookbook or menu, i.e. independent of current highway engineering guidelines -- sound engineering and Department approval are still required for flexible interpretation and use. And each element for a project must be carefully selected with the goal of evoking the Period of Significance of the historic resource, as well as being compatible with the historic surroundings. Maintenance and cost should also be key factors in the selection. The selection of the most appropriate design components must also take into account costs and the willingness and ability of the State and, in some instances, the local unit (be it a town or county) to enter into agreements for long term maintenance. All these elements, when taken as a whole, will steer the design team (comprised of cultural resources professionals, engineers, landscape architects, and other stakeholders) to the selection of the most appropriate treatment for the historic road.

The information has been divided into three main topics: Pedestrian and Bicycle Safety with sub categories; Highway Safety, again with sub categories; and Landscape. Although aesthetic treatments are the underlying theme in all categories, Landscape has been given its own section in order to highlight treatments such as planting buffers and gateways. Brief descriptions of the encountered situations and available treatments, appropriate uses of the treatments, sample locations, and pictures of implementations offer the project's design team a number of appropriate solutions to select from. When information has been available, product performance and maintenance issues have been included.

The examples are limited by the NJDOT's own application, to-date, on State highways. Because our **Toolkit for Historic Roadways** specifically addresses the significance of State highways, the NJDOT project team must look at designs suitable for State highways. This includes the use of TL 4 parapets. Keep in mind that there are many items, such as other parapet types, that meet the desired safety standards for non-State applications and are available for a designer's consideration for local roads.

The goal of this tool is to display actual application within historic districts or adjacent to historic properties. As significant historic roadways are identified, the appropriate design and aesthetics will be implemented for the resource. Remember, too, that mitigation, in most instances, has been more than the resultant "bricks and mortar." There have been Historic American Building and Historic American Engineering Record surveys to record historic features for posterity and public outreach programs associated with the projects to educate the public about historic and archeological resources. Design and construction, however, create a lasting impression that pays tribute to the resource.

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8/11/11

PEDESTRIAN AND BICYCLE SAFETY

Traffic Calming Measures
Pavements, Sidewalks, and Trail Connections
Curbing
Structure Fence
Ornamental Fencing and Railing
Informative and Interpretative Signs

TRAFFIC CALMING MEASURES

DESCRIPTION

Alternative surface treatments on or changes in cartway configuration. Acts to calm traffic and vary the overall look and feel of a site. Pavements can be stamped, or scored, or simply painted with a color contrast friction surface. Pavements can accept wet or dry laid pavers. There is an unlimited number of patterns available for use in this category. There are also a number of different colors and treatments that could be used to vary the pavement. Bump-outs and chicanes slow traffic at crosswalks.

APPROPRIATE USES

Within historic districts and within the view shed of historic properties for traffic calming.

SAMPLE LOCATIONS

Rt. 29 Lambertville Historic District
Rt. 57 Stewartsville Historic District
Rt. 173 Clinton Historic District

PRODUCT PERFORMANCE

Stamping and scoring is relatively easy to construct and replace. Durability and maintenance, dependent upon selected treatment. Thermoplastic paint lines and color contrast friction surfaces are highly visible, wear well, and easily distinguishes the bicyclist or pedestrian right of way.

PRODUCT MAINTENANCE AND LIFE CYCLE COST

Other than paint, installation may be labor intensive. Color and pattern may be subject to rapid deterioration especially if in a high traffic area. Integral tinting rather than staining will reduce the visual effects of impacts. Stone and brick materials require replacement when dislodged/damaged.

Laid stone and brick may require replacement if damaged by heavy equipment. Depending on selected treatment may require a highly skilled contractor.



Bump out and crosswalks on Rt. 29
in Lambertville Historic District



Bump out and crosswalks on
Rt. 71 in Avon-by-the-Sea,
New York and Long Branch
Railroad Historic District

Rt. 88 crosswalk in historic Lake-
wood





Crosswalk at roundabout at Alexander Road Bridge over Northeast Corridor Railroad Historic District, West Windsor



Rt. 57 crosswalk in the Stewartsville Historic District (left) and bike lane in New Village





Rt. 173 crosswalk in Clinton Historic District



Rt. 71, Avon-by-the-Sea
New York and Long
Branch Railroad Historic
District

PAVEMENTS, SIDEWALKS, AND TRAIL CONNECTIONS

DESCRIPTION

Pavements and sidewalks can be tinted, stamped, scored, or laid (dry or wet) with pavers.

In urban, suburban, or rural areas, sidewalks are often justified at points of community development such as residential areas, schools, local businesses, and commercial areas where concentration of pedestrians are anticipated. Sidewalks for these areas typically range from 4-8 feet with a buffer strip of 2 feet. Sidewalks should be ADA compliant and allow enough width for a wheelchair. In urban areas, sidewalks covering the full border width are often appropriate.

To reduce conflicts, recreational and animal trails in all settings can utilize innovative connections.

APPROPRIATE USES

Within historic districts and within the view shed of historic properties as most jobs will have some sidewalk work necessary within the project limits.

SAMPLE LOCATIONS

Rt. 1 Delaware and Raritan Canal Historic District
Rt. 29 Lambertville Historic District
Rt. 29 Lamberton Historic District
Rt. 45 Salem Historic Districts
Rt. 49 Bridgeton Historic District
Rt. 130 Kinkora Branch Railroad Historic District
Rt. 173 Clinton Historic District

PRODUCT PERFORMANCE

Stamping and scoring is relatively easy to construct and replace. Pre-cast culverts make it easy to connect trails.

PRODUCT MAINTENANCE AND LIFE CYCLE COST

Installation may be labor intensive. Color and pattern may be subject to rapid deterioration especially if in a high traffic area. Stone and brick materials require replacement when damaged.

Stone and brick may be subject to heaving in the vicinity of aggressive tree roots and may require replacement if damaged by heavy equipment.



Rt. 49 over Salem River interpretative plaza displaying historic bridge gears



Rt. 29 Deck Park (above) and waterfront promenade (to left) Lamberton Historic District



Rt. 30/130 Collingswood Circle showing tinted and stamped concrete to evoke laid brick (profile below)





Rt. 124 and Kings Road, near Drew University, sidewalk and island after intersection improvements near Old Main Delaware, Lackawanna and Western Railroad Historic District and the Ridgedale Avenue Foot Bridge in James Park



Rt. 45 Market Street Historic District in Salem

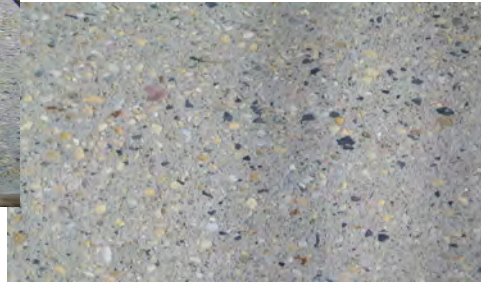


Rt. 29 Main Street sidewalk treatments in Lambertville Historic District





Rt. 49 over Cohansey River exposed aggregate sidewalks to evoke 1920s highway era within the Bridgeton Historic District



Rt. 18 New Brunswick brick sidewalk under construction



Rt. 173 sidewalk in Clinton Historic District using brick pavers and concrete



Rt. 71 in Avon-by-the-Sea, New York and Long Branch Railroad Historic District



Granite pavers used as crossing refuge and to separate traffic



Rt. 173 in Clinton Historic District with stamped concrete to evoke granite pavers. The island separates traffic and provides crossing refuge. It is mountable by turning emergency vehicles; stamping will not dislodge



Race Street in Vincentown Historic District. The interlocking geogrids will allow grass to grow yet have the strength to act as a sidewalk and shoulder while allowing water to percolate



Rt. 1 Pedestrian Bridge reconnecting the historic Delaware and Raritan Canal towpath



Rt. 71 tunnel at Monmouth University allows students easy access under highway



Rt. 130 over the historic Kin-kora Branch Railroad includes a culvert for animal and human access

I-95 above a culvert utilized by humans and animals



Rt. 31 near Hunterdon County Arboretum with trail continuing under the highway

CURBING

DESCRIPTION

Vertical curb heights vary depending on need or existing conditions. Typically concrete may be tinted to evoke bluestone or granite, for example. Granite block can be used where appropriate.

APPROPRIATE USES

Current standard is 4" vertical reveal but may be higher to match existing curbs or inlets. Within historic districts and within the view shed of historic properties as aesthetics can be included with design.

SAMPLE LOCATIONS

Statewide where curbing is required
Rt. 29 Deck Park (Lamberton Historic District)
Rt. 49 Bridgeton Historic District

PRODUCT PERFORMANCE

High

PRODUCT MAINTENANCE AND LIFE CYCLE COST

For other than concrete, a skilled contractor is necessary, and the material may require maintenance.



Standard curbing



Rt. 29 Deck Park granite curb with brick gutter in Lambertton Historic District



Rt. 49 over Cohansey River in Bridgeton Historic District granite curbing



Rt. 49 Cohansey River in Bridgeton Historic District tinted concrete to match existing blue stone curbing

STRUCTURE FENCE

DESCRIPTION

Chain link or rectangular link fence can be curved or straight. Fencing details are provided in NJDOT's Bridge Construction Details standard drawing. This type of fencing prevents pedestrians and bicyclists from falling onto the highway and train tracks as well as preventing pedestrians and bicyclists from throwing anything onto the facility. The chain link is covered with colored vinyl, such as brown.

APPROPRIATE USES

Within historic districts and within the view shed of historic properties, the fences can be vinyl coated. Used on local roads or land service roads which promote pedestrian traffic.

SAMPLE LOCATIONS

I-295 Trenton Complex Pedestrian Overpass at the Delaware and Raritan Canal Historic District

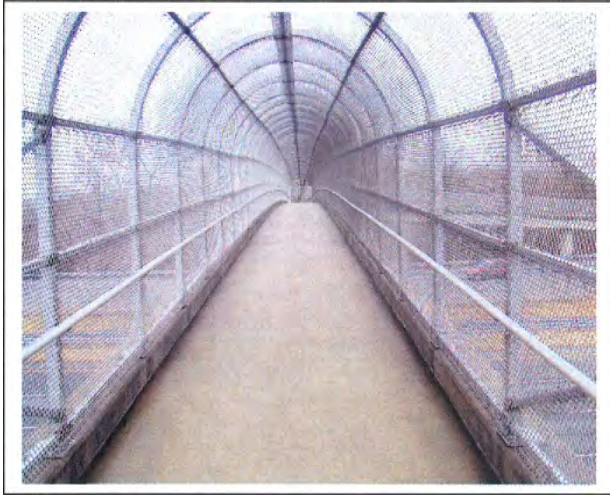
Southard Street Bridge over Rt. 1 and Camden and Amboy Railroad Historic District and Delaware and Raritan Canal Historic District

PRODUCT PERFORMANCE

In conformance with NJDOT Design Manual for Bridges Structures.

PRODUCT MAINTENANCE AND LIFE CYCLE COST

PVC vinyl provides a distinctive quality and charm. This requires no maintenance and is extremely long lasting and durable. Resistant to corrosion, cracking, splitting and insect damage. All fence components should match the color of the selected vinyl.



Trenton Complex pedestrian overpass over I-295 and Delaware and Raritan Canal Historic District



Southard Street bridge over Rt. 1 and the Camden and Amboy Railroad Historic District and Delaware and Raritan Canal Historic District



Rt. 18 Piscataway



Amwell Road bridge over the historic railroad

ORNAMENTAL FENCING AND RAILING

DESCRIPTION

Ornamental steel or aluminum fencing provides a strong, secure fence with an appealing open design that does not detract from landscaping. Railing can sometimes be salvaged and refurbished and reused. This is preferred when bridge is historically significant.

Concrete bridge parapets may also be topped by this historically compatible and aesthetic fencing if safety standards are met. Ornamental railing is non-structural in nature when atop a structural parapet. Compatibility and application dictate height of the structural parapet.

APPROPRIATE USES

Historic roads and bridges, historic districts, within the view shed of historic properties, State scenic byways, Park and Ride facilities, and downtown area bridges where aesthetics are desired. Under the Secretary of Interior's Standards for Rehabilitation for historic preservation, original historic fabric must be salvaged if at all possible.

SAMPLE LOCATIONS

Rt. 47 Dennis Creek Landing Historic District
Rt. 179 Mt. Airy Historic District
Rt. 206 at Duke Estate
Vincentown Historic District

PRODUCT PERFORMANCE

Paint enhancement contributes to cost and maintenance. System can be left unpainted/galvanized. Exterior only painting is done through the powder coating system. Ornamental fencing picket tops may be flat, rounded, pointed and can be designed to point into or away from the perimeter. Pointed finials are not recommended for fencing under 6' for safety reasons. Rather than being hand forged, prefabricated tubular bars are similar in style to traditional wrought iron but more affordable.

PRODUCT MAINTENANCE AND LIFE CYCLE COSTS

Pickets may be spaced from 3-16 inches apart for customization. All parts are galvanized and powder-coated with polyester resin. The stainless steel welds are rust-proof for less maintenance. Standard colors are black, white, bronze, green and tan; custom colors are available upon request. Usual warranty provides protection against cracking, peeling, blistering and corroding for 15 years from purchase.



Rt. 47 over East Creek
in Dennis Township



Rt. 179 over Alexauken
Creek in Mt. Airy Historic
District

Rt. 206 Duke Parkway at the
Duke Estate





Rt. 29 Deck Park in Lambertton Historic District



Maple Avenue in Haddon Township over Camden and Atlantic Railroad Historic District



Vincentown Historic District, Race Street bridge (left) and Main Street bridge where the original railing was reused



Hope Road over historic rail-
road district, Blairstown
vicinity, Warren County



Rt. 49 over Cape May
Branch Railroad Historic Dis-
trict



Alexander Road bridge over
Northeast Corridor Railroad
Historic District in West
Windsor

Rt. 40 in Mays Landing Historic District



INFORMATIVE AND INTERPRETATIVE SIGNS

DESCRIPTION

Signs are important to inform people. Historical interpretation signs can be designed and printed in-house in our Sign Shop or fabricated by outside vendors following the original 1940s cast iron sign design. Standard design for recognition purposes is important; from a distance, a potential reader can recognize the color and outline of the signs with the expectation of content.

APPROPRIATE USES

Conveying historical information along the roadway or pedestrian/bicycle path within historic districts or within the view shed of historic properties. Along a State highway, these signs should contain just enough information to allow a motorist to read and retain while maintaining speed. In areas away from traffic, these signs can be larger and contain pictures, maps, and other information.

SAMPLE LOCATIONS

Chesterfield Sykesville Road Bridge
Rt. 130 Kinkora
Rt. 206 Atsion
Rt. 206 Rockaway

PRODUCT PERFORMANCE

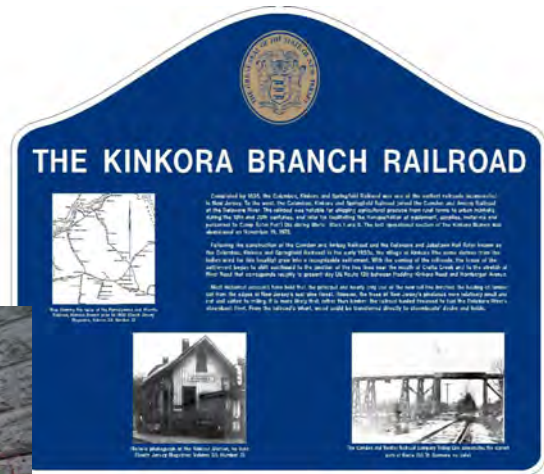
The 1940s-like cast aluminum signs must be erected on posts which can withstand weight and wind. The signs and posts are patterned after the 1940s set. Font and limited text is important for highway signs as people's viewing time is brief.

PRODUCT MAINTENANCE LIFE CYCLE COST

DOT Sign Shop fabrication of aluminum, scroll topped historic signs with the State seal allows for easy replacement in case of marring through vandalism or road salts. The DOT Sign Shop has the capability of copying maps and photographs for pedestrian signs. These signs can last indefinitely and are mounted on U-posts.



Rt. 130 highway historic marker (left) and trail sign (right) and in situ below



Rt. 206 over Blacks Creek, original 1940s cast iron sign and post above; replicated versions at right



Chesterfield-Sykesville Road over Blacks Creek replica sign, interpretative sign, and historic marker

Interpretative sign is located above embedded sample of historic Lutens technology of original bridge





Blue Star Memorial Byway marker on Rt. 70 within the Rockefeller Memorial Highway Historic District

GEMZ program identifies areas to receive limited mowing thus promoting habitat and cost savings



Route 9 (17B) Bass River Wetland Mitigation and Restoration Project

New Jersey Department of Transportation
 Division of Environmental Resources
 609-530-8075

To Report Illegal Activities or for Additional Information on This Site Call the Above Number
 Mowing, Cutting, Dumping and Draining of the Property is Prohibited



Rt. 9 over Bass River wetland mitigation sign

HIGHWAY SAFETY

Barrier Curb/Median

Bridge Parapet

Guiderail

Highway Lighting

Signals

Retaining Walls/Noise Walls

BARRIER CURB/MEDIAN

DESCRIPTION

Jersey Barrier Curb is used on many highways throughout New Jersey. This is our default barrier in varying shapes, but it can receive aesthetic treatments. Stenciling or formlining can be used to provide an aesthetic treatment to our Jersey Barrier Curb.

Other devices such as low mountable islands can be given treatments.

APPROPRIATE USES

High speed roadways to separate opposing traffic when no median is provided. Within historic districts and within the view shed of historic properties.

SAMPLE LOCATIONS

Rt. 29 Trenton
Rt. 30 Absecon
Rt. 71 Avon
Rt. 173 Clinton

PRODUCT PERFORMANCE

Stenciling holds up very well but will mar and scratch if hit by vehicles.
Formliners are hand stained but will mar and scratch if hit by vehicles.
Integral tinting rather than staining will reduce the visual effects of impacts.

PRODUCT MAINTENANCE AND LIFE CYCLE COST

May be labor intensive and require a highly skilled contractor

PRODUCT NOTES

Standard road barrier comes in various configurations.

www.roadstothefuture.com/Jersey_Barrier.html



Rt. 30 in Absecon in the view shed of the Camden and Atlantic Railroad Historic District



Rt. 29 in Trenton, State House Historic District





Granite pavers on median used as crossing refuge and to separate traffic



Rt. 173 in Clinton Historic District with stamped concrete to evoke granite pavers. It is mountable by turning emergency vehicles; stamping will not dislodge



Rt. 71 Avon-by-the-Sea, New York and Long Branch Railroad Historic District

BRIDGE PARAPET

DESCRIPTION

Treatments to parapets are intended to be pleasing for passing motorists and pedestrians. A number of parapet configurations have been TL 4 approved and are suitable for use on State highways. These include both vertical walled, "punched-out," and Jersey barrier shaped parapets; sidewalks are not necessary for a vertical wall or "punched-out" parapet. Parapets can receive inboard and outboard treatments, such as form liners, stone, light aggregate exposure, and staining. Pylons can be added to break the visual run of the parapets. TL5 parapets suitable for interstate highways can receive outboard details. Parapet height is dependent upon application.

A number of metal railing systems are approved for state highways.

APPROPRIATE USES

On bridges within historic districts or bridges within the view shed of historic districts. Aesthetic design treatments are also used for replacement of individually eligible historic bridges.

SAMPLE LOCATIONS

Jacksonville-Jobstown Road bridge

2nd Street Newark over Old Main Line-Lackawanna Railroad/Grade Separation Historic Districts

Rt. 30 and Delilah Road over the Camden and Atlantic Railroad Historic District

Rt. 45 Market Street Historic District

PRODUCT PERFORMANCE

Aesthetics does not affect safety performance. Limitations on reveal on inboard side of parapet. Typical dimension for scoring is 1" depth with reasonable width. Integral color (i.e. tinting) affects the Rapid Chloride Permeability Test and should not be used with High Performance Concrete.

PRODUCT MAINTENANCE AND LIFE CYCLE COST

Life cycle 50 years+. Powder coated enhancement increases maintenance cost. For tubular railing parapet, powder coating process fails to cover inside tubes.

<http://www.fhwa.dot.gov/bridge/bridgerail/index.cfm>



Rt. 45 in the Salem City Market Street Historic District



Rt. 70 Rockefeller Memorial Highway Historic District



Rt. 56 at Rainbow Lake



Rt. 27 Kings Highway Historic District Princeton inboard (left) and outboard (right)





Rt. 70 over Manasquan River



Rt. 49 over Cape May Branch Railroad Historic District use of non-redundant thru girder with decorative inboard barrier

Maple Avenue Haddon Township over Camden and Atlantic Railroad Historic District



2nd Street faux thru-girder bridge in Newark over the Old Main Line-Lackawanna Railroad/ Grade Separation historic districts



Rt. 31 Readington Township
Rowland's Mills Historic
District (outboard and inboard
treatment of Jersey Barrier;
note the pylons)



Rt. 70 Rockefeller Memorial High-
way Historic District (inboard and
outboard treatment of a Jersey
Barrier)





Rt. 40 Mays Landing Historic District



Jacksonville-Jobstown Road, Burlington County example of punched-out parapet in vicinity of Jacksonville Historic District (future application on Rt. 9 in West-cunk Historic District)



I-280 over the Morris-town and Erie Railroad, a potentially eligible his-toric district



Rt. 30 in Absecon;
Delilah Road over
the Camden and
Atlantic Railroad
Historic District



Rt. 9 Edison
bridge over the
Raritan River

GUIDERAIL

DESCRIPTION

Crash test results rate the system as one of the safest NCHRP 350 TL-3-10 and 3-11 energy absorbing longitudinal barriers available in today's market.

APPROPRIATE USES

Powder-coated guiderail is used in historic districts and within the view shed of historic properties and areas where aesthetic treatments are desired and in natural and forested settings to blend with the surroundings.

SAMPLE LOCATIONS

Rt. 40 Mays Landing Historic District
Rt. 70 Rockefeller Memorial Highway Historic District
Rt. 202 Mine Brook

PRODUCT PERFORMANCE

Guides vehicles by deflection back onto roadway and away from hazards found beyond the shoulder.

PRODUCT MAINTENANCE AND LIFE CYCLE COST

Guiderail systems can last indefinitely; upgrades will determine longevity of the system. Matching individual replacement guiderail with the extant system may be problematic if matching color is not in stock.

PRODUCT NOTES

Can be powder-coated to reduce shine and blend with natural settings. Guiderail in acceptable condition should be reused on a project as it has had time to "weather" and fits well into the environs.



Rt. 70 over Bisphams Mill on the Rockefeller Memorial Highway Historic District and within a forest setting

Rt. 40 Mays Landing Historic District



Rt. 202 over Mine Brook

HIGHWAY LIGHTING

DESCRIPTION

Many lighting units with a decorative style are now suitable for highway lighting. Black powder coated standards are used with decorative mast arms and fixtures.

APPROPRIATE USES

Along highways within historic districts, within the view shed of historic properties, along main streets with multi-purpose walkways and sidewalks, and for other warrants, such as on bridges.

SAMPLE LOCATIONS

Rt. 18 New Brunswick
Rt. 30/130 Collingswood
Rt. 71 Avon-by-the-Sea
Rt. 206 at Duke Estate

PRODUCT PERFORMANCE

Units are available depending upon the design parameters set by the lighting engineer.

PRODUCT MAINTENANCE AND LIFE CYCLE COST

Many utility companies now stock decorative street lamps. Warranties vary between manufacturers and utility companies. Jurisdictional agreements concerning maintenance may be drafted between DOT and the local unit.

PRODUCT NOTES

Determination must be made as to whether units will meet specific design parameters. Location and type of fixtures must not create glare problems for the nearby roadway. Any installations that border a State highway must be submitted for approval by NJDOT.



Rt. 206 Duke Parkway at
Duke Estate



Rt. 71 Avon-by-the-Sea within
New York and Long Branch
Railroad Historic District



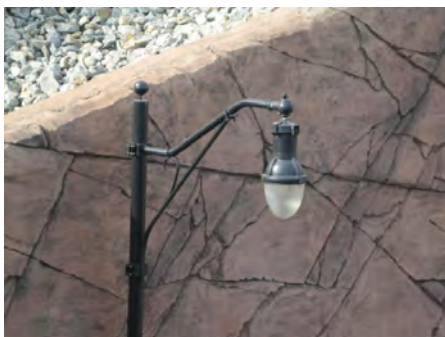
Southard Street bridge over Rt. 1 and the Delaware and Raritan Canal Historic District



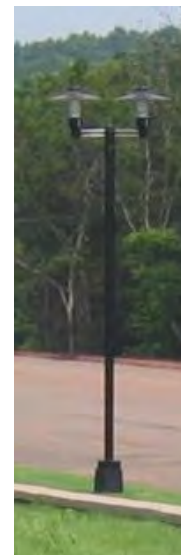
Rt. 18 in Piscataway



Rt. 30/130 Collingswood Circle



Rt. 18 New Brunswick, Delaware and Raritan Canal and other New Brunswick historic properties



SIGNALS

DESCRIPTION

Powder coated traffic signal poles, mast arms, meter cabinets, mast arm support assemblies, lighting arm assemblies, transformer bases. Typically, black powder coating is used, but brown and green have been used.

APPROPRIATE USES

Within historic districts and in the view shed of historic properties.

SAMPLE LOCATIONS

Rt. 30 Barrington

Rt. 47 Dennis Township

Rt. 71 Avon-by-the-Sea

Rt. 206 at Duke Estate

PRODUCT PERFORMANCE

Powder coated aesthetics to traffic signal poles, mast arms, meter cabinets, mast arm support assemblies, lighting arm assemblies, transformer bases do not affect safety

PRODUCT MAINTENANCE AND LIFE CYCLE COST

Black standards are stocked at DOT; other replacement components may need to be fabricated especially for the specific location. Jurisdictional agreements concerning maintenance may be drafted between DOT and the local unit.

PRODUCT NOTES

Unless a jurisdictional agreement for future electrical maintenance is developed between the town and DOT, the DOT standard yellow signal housing is utilized for all signals.



Rt. 71 Avon-by-the-Sea, New York
and Long Branch Railroad Historic
District



Rt. 206 Duke Parkway
at Duke Estate

Rt. 30 Barrington





Rt. 173 within the Clinton Historic District



Rt. 47 intersection improvement Dennis Township within the Dennisville Historic District

RETAINING WALLS/NOISE WALLS

DESCRIPTION

A formliner finish or stamped pattern can be used on the face of the wall. This finish can be a texture/color. Color can be added integrally or stained. Random cut stone is also an option.

Noise walls are specially designed structures. Commonly, post and panel type construction is used. Noise walls are built when noise impact studies are conducted and certain conditions and noise levels are found.

APPROPRIATE USES

Within historic districts or within the view shed of historic properties, to be used on retaining walls and noise walls. Noise walls may be clear to enable roadway users to view the historic properties.

SAMPLE LOCATIONS

Rt. 18 New Brunswick Historic Districts
Rt. 31 Rowland's Mills Historic District

PRODUCT PERFORMANCE

Similar to concrete, DOT may think about keeping a formliner for future repairs, if the chosen formliner is not standard.

PRODUCT MAINTENANCE AND LIFE CYCLE COST

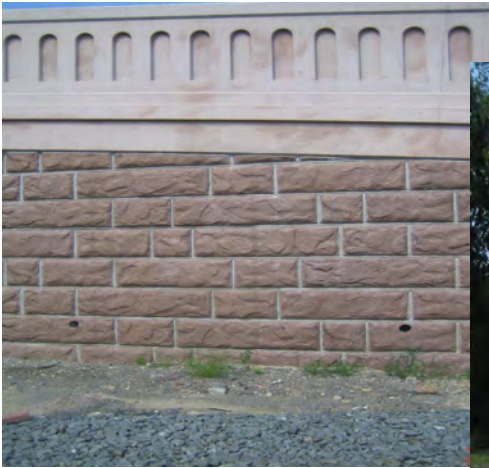
Depending on the treatment, construction may require highly skilled contractor. May be hard to repair if a portion is damaged. Integral tinting rather than staining will reduce the visual effects of impacts.

PRODUCT NOTES

Formliner panel continuity may be a problem if design is intricate or if there is a reason to break the pattern.



Rt. 31 Readington Township, Rowland's Mills Historic District



Southard Street bridge over Rt. 1 and the Delaware and Raritan Canal Historic District



Rt. 18 New Brunswick, Delaware and Raritan Historic District and other New Brunswick historic properties





Rt. 18 Noisewalls at the historic Agnew House in New Brunswick



**LANDSCAPING
AND
AESTHETICS**

LANDSCAPING

DESCRIPTION

Landscaping is often done to accentuate or enhance features in an historic district or at an historic property; to screen a facility from historic properties; or to honor the landscaping of a master where appropriate. Seasonal color is used to accent areas of special importance and can add color and beauty along a roadway.

Landscaping can be designed to be *functional* and will provide a context sensitive solution. For example, carefully selected and placed plantings can offer an aesthetic barrier for light glare; it can be used to soften the appearance of a concrete wall. Landscaping can create a gateway to an historic district or soften new construction.

APPROPRIATE USES

Within historic districts or at historic properties.

SAMPLE LOCATIONS

Rt. 47 Dennisville Historic District

Rt. 173 Clinton Historic District

Rt. 202 Raritan/Readington South Branch Historic District

PRODUCT PERFORMANCE

A commitment to ongoing maintenance is essential to keep these areas attractive.

PRODUCT MAINTENANCE AND LIFE CYCLE COST

Periodic weeding, pruning, mulching and deadheading are needed to keep flowering plants looking their best. Division of perennials and ornamental grasses should be done every few years. Many times, ladies clubs or local units will offer to maintain the planted areas when located on local roads.

PRODUCT NOTES

Preference should be given to native species that are long blooming, low maintenance, and disease and insect resistance.



Rt. 202 screening of the Raritan/
Readington South Branch Historic
District



Rt. 47 screening of the
powder coated signal
appurtenances within
Dennisville Historic
District



Rt. 47 improvements
in the William S.
Townsend House view
shed, Dennis Town-
ship



Rt. 173 Clinton Historic District received new retaining walls, plantings, and gateway treatment



AESTHETIC DESIGN DETAILS

DESCRIPTION

Some projects require additional design aesthetics which capture the historic district or historic property's significance. These details include tile work and other items, such as gateway signs and kiosks.

APPROPRIATE USES

Where the details will be shared by vehicles and pedestrians.

SAMPLE LOCATIONS

Rt. 30 and Delilah Road

Rt. 29 Trenton Deck Park

Rt. 29 Trenton Tunnel

Rt. 49 over Cohansey River Bridgeton Historic District

Rt. 173 Clinton

PRODUCT PERFORMANCE

Performance and longevity are dependent on aesthetic treatment employed.

PRODUCT MAINTENANCE AND LIFE CYCLE COST

Frequently involves the use of a skilled contractor. Jurisdictional agreements concerning maintenance may be drafted between DOT and the local unit.

PRODUCT NOTES

Preference should be given to long-lasting items that can be easily maintained, cleaned, and repaired.

Rt. 49 over the Cohansey bridge in
Bridgeton Historic District



Pylon treatment on Delilah
Road over Rt. 30 (White
Horse Pike) in Absecon



Rt. 29 Lambertton Historic District in Trenton



Rt. 173 Clinton Historic District gateway



Rt. 29 Deck Park Lambertton Historic District in Trenton

