



Disclaimer

NJDOT Home	About NJDOT	Traveler Info	Community Programs	Reference / Links
Engineering	In the Works	Capital Program	Multimodal/Freight	Doing Business

Our Projects and the Environment

Route 30/130 Improvements Overview

Route 30/130 Improvements

Overview

This web site has been archived and is no longer being updated.

The Route 30/130 Collingswood/Pennsauken (Phase B) project includes improvements of Route 30/130 (milepost 4.02 to milepost 3.49) located in the Borough of Collingswood, Township of Pennsauken and City of Camden in Camden County. The project limits extend north from approximately the PATCO Bridge to just north of the intersection of Route 30/130 with North Park Drive at Central Highway.

The proposed improvements includes the safety improvements along Route 30/130, the re-decking of the Haddon Avenue Bridge, the replacement of the Cooper River Bridge and the operation improvements at the intersection of Route 30/130 with North Park Drive.

Construction is scheduled to begin in Fall 2011 and the estimated duration is 2-3 years.

- [Categorical Exclusion Documentation](#) (pdf 9.9m)
- [Cost/Benefit Analysis](#) (pdf 202k)
- [Environmental Reevaluation](#) (pdf 4.6k)
- [Nationwide Programatic Section 4\(f\) Evaluation for Minor Involvements with Public Parks](#) (pdf 1.5m)
- [Nationwide Programatic Section 4\(f\) Evaluation for Use of a Historic Bridge](#) (pdf 254k)
- [Pennsauken Letter of Support](#) (pdf 36k)
- [Project Location Map](#) (pdf 1.1m)
- [Project Map](#) (pdf 2m)
- [Project Schedule](#) (pdf 380k)
- [Section 4\(f\): de minimus](#) (pdf 917k)
- [Support - Congressman Andrews](#) (pdf 66k)
- [Support - Governor Chris Christie](#) (pdf 276k)
- [Support - Senator Lautenberg](#) (pdf 200k)
- [Wage Rate Certification](#) (pdf 19k)

The files above are in Portable Document Format (PDF). You will need Adobe Acrobat Reader, which is available free from the [state Adobe Access page](#), to view the files.



[Contact Us](#) | [Privacy Notice](#) | [Legal Statement](#) | [Accessibility Statement](#)



department: [home](#) | [about](#) | [NJ commuter](#) | [in the works](#) | [business](#) | [engineering](#) | [freight, air & water](#) | [capital](#) | [community](#) | [data](#) | [links](#) | [index](#)
 statewide: [NJ Home](#) | [about NJ](#) | [business](#) | [government](#) | [state services A to Z](#) | [departments](#)

Copyright © State of New Jersey, 2002-2020

Department of Transportation
P.O. Box 600
Trenton, NJ 08625-0600



Last Updated: January 18, 2013



Disclaimer

NJDOT Home	About NJDOT	Traveler Info	Community Programs	Reference / Links
Engineering	In the Works	Capital Program	Multimodal/Freight	Doing Business

Our Projects and the Environment

Route 30/130 Improvements Overview

Route 30/130 Improvements Overview

This web site has been archived and is no longer being updated.

The Route 30/130 Collingswood/Pennsauken (Phase B) project includes improvements of Route 30/130 (milepost 4.02 to milepost 3.49) located in the Borough of Collingswood, Township of Pennsauken and City of Camden in Camden County. The project limits extend north from approximately the PATCO Bridge to just north of the intersection of Route 30/130 with North Park Drive at Central Highway.

The proposed improvements includes the safety improvements along Route 30/130, the re-decking of the Haddon Avenue Bridge, the replacement of the Cooper River Bridge and the operation improvements at the intersection of Route 30/130 with North Park Drive.

Construction is scheduled to begin in Fall 2011 and the estimated duration is 2-3 years.

- [Categorical Exclusion Documentation](#) (pdf 9.9m)
- [Cost/Benefit Analysis](#) (pdf 202k)
- [Environmental Reevaluation](#) (pdf 4.6k)
- [Nationwide Programatic Section 4\(f\) Evaluation for Minor Involvements with Public Parks](#) (pdf 1.5m)
- [Nationwide Programatic Section 4\(f\) Evaluation for Use of a Historic Bridge](#) (pdf 254k)
- [Pennsauken Letter of Support](#) (pdf 36k)
- [Project Location Map](#) (pdf 1.1m)
- [Project Map](#) (pdf 2m)
- [Project Schedule](#) (pdf 380k)
- [Section 4\(f\): de minimus](#) (pdf 917k)
- [Support - Congressman Andrews](#) (pdf 66k)
- [Support - Governor Chris Christie](#) (pdf 276k)
- [Support - Senator Lautenberg](#) (pdf 200k)
- [Wage Rate Certification](#) (pdf 19k)

The files above are in Portable Document Format (PDF). You will need Adobe Acrobat Reader, which is available free from the [state Adobe Access page](#), to view the files.



[Contact Us](#) | [Privacy Notice](#) | [Legal Statement](#) | [Accessibility Statement](#)



department: [home](#) | [about](#) | [NJ commuter](#) | [in the works](#) | [business](#) | [engineering](#) | [freight, air & water](#) | [capital](#) | [community](#) | [data](#) | [links](#) | [index](#)
 statewide: [NJ Home](#) | [about NJ](#) | [business](#) | [government](#) | [state services A to Z](#) | [departments](#)

Copyright © State of New Jersey, 2002-2020

Department of Transportation
P.O. Box 600
Trenton, NJ 08625-0600



Last Updated: January 18, 2013

NEW JERSEY DEPARTMENT OF TRANSPORTATION
CATEGORICAL EXCLUSION DOCUMENTATION

CED Form Updated October 28, 2008

I. GENERAL INFORMATION			
DOT Job Code No.	0404506	Federal Project No.	MG 0016(148)
Project Management Team	Group D	UPC No.	009010
Route & Section	US 30 & US 130, Section 1	Structure No.	0405-152, 0405-153
Local Road Name	Crescent Boulevard		
Municipality(ies)	Borough of Collingswood, City of Camden & Township of Pennsauken	County(ies)	Camden
Type of Project	Operational Improvements and Bridge Replacement	Length	0.64 Miles
From Milepost	MP 3.40	To Milepost	MP 4.04
Congressional District	1	Legislative District	5, 6 and 7
ROW Cost	\$3,692,300	Construction Cost	\$31,655,685

EXISTING FACILITY			
ROW Width	Varies 80' to 86'		
No. Lanes & Width	Varies 4 to 6 lanes at 11'±		
Shoulder Width	6' to 8'	Median	4'
Overall Roadway Width	Varies 64' to 70'		

PROPOSED FACILITY			
ROW Width	Varies 80' to 107'		
No. Lanes & Width	Varies 4 to 6 lanes at 11'		
Shoulder Width	8'-10'	Median	4'
Overall Roadway Width	Varies 64' to 86'		

II. PROJECT DESCRIPTION (see attached Project Area Location Map)
<p>A. Project Need: Route 30/130 experiences operational problems due to geometric deficiencies. Controlling Substandard Design Elements (CSDE) have been identified and include substandard intersection sight distance, substandard vertical sight distance, substandard minimum radius, substandard vertical clearance, substandard cross-slopes, and substandard superelevation. Additionally, access points on the project corridor do not conform to the New Jersey State Highway Access Management Code, the corridor is not compatible for bicycles and pedestrians, and hazards located within the clear zones are not protected. In addition to the geometric and operational deficiencies, the Cooper River Bridge, which has a low sufficiency rating (50/100), is considered structurally deficient and is in need of replacement. The project need is to accommodate traffic load and improve safety and operational conditions along Route 30/130 within the project limits.</p>
<p>B. Proposed Improvements (provide a brief description of proposed improvements): The proposed improvements include a four-lane roadway section with outside shoulders under the PATCO Bridge located at the southern terminus of the project. The roadway underneath the PATCO Bridge will not be widened and the alignment will match the alignment of the newly constructed portion of Route 30/130 (Phase A). A project location map is provided in Figure 1 (see Attachment A).</p> <p>North of the PATCO overpass, the northbound roadway will include two 11-foot wide travel lanes and an eight-foot wide outside shoulder. At Haddon Avenue, an 11-foot wide auxiliary lane will be added northbound and the outside shoulder will be increased to 10-feet. This roadway section will be carried to the northern project limits where it will meet the existing roadway except in the area of Cooper River Park. Through the park, the outside shoulder will be reduced to eight feet in width in order to minimize impacts to the public park. At the Route 30/130 intersections with Haddon Avenue and Maple Avenue the eight-foot shoulder will be converted to a 15-foot auxiliary lane.</p> <p>Southbound Route 30/130 will provide two 11-foot wide travel lanes, an 11-foot wide auxiliary lane, and an eight-foot wide outside shoulder from the northern project limits over the Cooper River Bridge. South of the bridge, the</p>

three-lane section transitions to a two-lane section. South of the Cooper River Park and Harleigh Cemetery the outside shoulder will be widened to 10 feet. This roadway section is carried south to Haddon Avenue, where an eight-foot wide outside shoulder will be utilized to minimize right-of-way impacts and to match the Phase A roadway section. At the Route 30/130 intersection with Haddon Avenue the eight-foot shoulder is converted to a 15-foot auxiliary lane.

The northbound and southbound directions will be separated by a four-foot wide median area consisting of a two-foot wide concrete barrier with one-foot inside shoulders. A 10-foot border area (berm) consisting of a four-foot wide sidewalk separated from the shoulder by a three-foot wide grass buffer will be constructed, on both sides of the highway throughout the project limits, except from the PATCO Bridge to Haddon Avenue, where an eight-foot wide border area (berm) is utilized to minimize right-of-way impacts. The roadway embankment fill slopes will be constructed on a 4 to 1 maximum slope beyond the border areas. In addition, an 11-foot border area (berm) will be constructed, along Harleigh Cemetery and Cooper River Park to accommodate a guide rail to be placed at the top of slope. In this area, the roadway embankment will be constructed at a 2 to 1 slope to minimize the impacts to the Cemetery and the Park as well as wetlands adjacent to the roadway.

Two bridges are located along this section of Route 30/130. Structure No. 0405-152 (Route 30/130 over Haddon Avenue Bypass) will be widened approximately 12 feet to the east to accommodate the northbound widening. In addition, the existing deteriorating bridge deck will be replaced.

Structure No. 0405-153 (Route 30/130 over Cooper River) will be completely replaced due to the condition of both the superstructure and substructure. The proposed bridge will provide for two through lanes and an auxiliary lane in each direction, and sidewalks along both fascias. The proposed structure will carry an eight-foot right shoulder, and three 11-foot lanes each way, separated by a four-foot median. A minimum sidewalk width of six feet will be provided on the southbound side of the bridge. The northbound portion of the bridge will be overbuilt to maintain traffic during construction. As a result, a twelve-foot sidewalk will be provided on the northbound side. The total width of the bridge will be approximately 110 feet, and the span length will be approximately 170 feet.

C. Right-of-Way Taking			
Total area needed: 3.7 acres	Est. No. parcels:	In fee- 21	easements- 14
Est. No. relocations:	residences- 0	businesses- 0	parking spaces-10
Community Facilities Affected: The Pennsylvania mica staircase located at the southeast quadrant of the Rt. 30/130 bridge crossing, in the Cooper River Park, will be removed; a walking/running trail will be created/improved as mitigation for impacts to the staircase, which must be removed for placement of guiderail.			
Area of public recreation land taken: 0.89 acre		Out of a total area of: 346.55 acres	
<input checked="" type="checkbox"/>	Green Acres/State-owned Land Involvement		
<input checked="" type="checkbox"/>	Federally Owned/Federally Funded Land Involvement		
<p>Comments: The proposed project involves a strip taking from the Cooper River Park, which is a publicly-owned park. In addition, Cooper River Park has utilized funds provided by the National Park Service's Land and Water Conservation Fund (LWCF). Coordination with the NJ Department of Environmental Protection's (NJDEP) Green Acres Program has been ongoing and will continue until the Green Acres process is complete. Since NJ's contact for the LWCF as shown at http://www.nps.gov/ncrc/programs/lwcf/contact_list.html is NJDEP's Green Acres Program, coordination with LWCF to ascertain their position on the land conversion/transfer will occur via the Green Acres process. Contacted Rob Rodriguez of the Green Acres Program on 11/3/08 and he confirmed that we'll deal with LWCF through his office via the Green Acres Process.</p>			

III. ENVIRONMENTAL CONSIDERATIONS	
A. Noise	
<input checked="" type="checkbox"/>	Sensitive receptors exist within 200 feet for two lanes or 400 feet for four lanes.
<input type="checkbox"/>	Project substantially changes the vertical or horizontal alignment of the roadway.
<input type="checkbox"/>	Traffic volumes or speeds substantially increase.
Conclusion:	
<input checked="" type="checkbox"/>	Noise study not required. No significant impact anticipated.
<input type="checkbox"/>	Potential noise impacts were studied and are discussed in comments. Project still meets CE criteria.
Comments: Since the project involves a bridge replacement and other roadway improvements, no significant changes in noise levels are anticipated. No opportunities for traffic noise mitigation exist.	
B. Air Quality: CONFORMITY WITH THE CLEAN AIR ACT AMENDMENTS (CAAA) OF 1990	
Section 1: Regional Emissions Analysis (STIP or MPO's conforming transportation plan)	
<input checked="" type="checkbox"/>	Project is included in the FY 2009 - 2018 approved State Transportation Improvement Plan (STIP).
<input type="checkbox"/>	Project is not listed in the FY 20_ - 20_ approved STIP but is included in the MPO's conforming transportation plan.
<input type="checkbox"/>	Project is not included in either the approved STIP or the MPO's conforming transportation plan.
Section 2: Based on its scope, the project is categorized by the Transportation Conformity Rule (TCR) as:	
<input type="checkbox"/>	A project type listed in Table 2 of the TCR, i.e., Exempt from the conformity requirements of the CAAA (i.e., exempt from regional emissions analysis, Carbon Monoxide (CO) analysis, and Particulate Matter PM2.5 and PM10 analyses requirements) and may proceed towards implementation even in the absence of a conforming transportation plan and TIP.
<input type="checkbox"/>	A project listed in Table 3 of the TCR, i.e., Exempt from regional emissions analysis requirement, but local effects of this project with respect to CO, PM2.5 and PM10 concentrations must be considered to determine if a hot-spot analysis is required. <i>Complete Section 2a below.</i>
<input checked="" type="checkbox"/>	A project type not listed in Table 2 or Table 3 of the TCR, i.e., must be part of a conforming STIP and/or a MPO's conforming transportation plan and requires CO, PM2.5 and PM10 hot-spot analyses. <i>Complete Section 2a below.</i>
Section 2a(1): Project type listed in Table 3 of the TCR for CO analysis Project type not listed in either Table 2 or Table 3 of the TCR for CO analysis	
<input checked="" type="checkbox"/>	Project located in CO Attainment Area . CO analysis not required. Project may proceed to the project development process.
<input type="checkbox"/>	The total eight-hour Carbon Monoxide levels are expected to be reasonably below the NAAQS of 9 ppm. This is based on LOS data for the intersection(s) and the total highest traffic volumes at this (those) intersection(s) and the distance of the sensitive receptors to the roadway. No quantitative analysis is required. Project may proceed to the project development process even in the absence of a conforming transportation plan and TIP.
<input type="checkbox"/>	Project located in a Carbon Monoxide Non-Attainment/Maintenance Area and requires a Carbon Monoxide hot-spot analysis. A CO Analysis was completed at the following intersection(s): _____ And the results are: _____

Section 2a(2): Project type listed in Table 3 of the TCR for PM2.5 analysis Project type not listed in Table 2 or Table 3 of the TCR for PM2.5 analysis	
<input type="checkbox"/>	The project is located in PM2.5 Attainment Area . PM2.5 hot-spot analysis is not required. Project may proceed to the project development process.
<input checked="" type="checkbox"/>	The project is located in a PM2.5 Non-Attainment/Maintenance Area and the project is not an air quality concern under 40CFR 93.123(b) (1). Quantitative/qualitative analysis is not required. Project may proceed to the project development process.
<input type="checkbox"/>	The project is located in a PM2.5 Non-Attainment/Maintenance Area and the project is an air quality concern under 40CFR 93.123(b) (1). A PM2.5 hot-spot analysis was completed at the following location(s): _____ And the results are: _____
Section 2a(3): Project type listed in Table 3 of the TCR for PM10 analysis Project type not listed in Table 2 or Table 3 of the TCR for PM10 analysis	
<input checked="" type="checkbox"/>	The project is located in PM10 Attainment Area . PM10 hot-spot analysis is not required. Project may proceed to the project development process.
<input type="checkbox"/>	The project is located in a PM10 Non-Attainment/Maintenance Area and the project is not an air quality concern under 40CFR 93.123(b) (1). Quantitative/qualitative analysis is not required. Project may proceed to the project development process.
<input type="checkbox"/>	The project is located in a PM10 Non-Attainment/Maintenance Area and the project is an air quality concern under 40CFR 93.123(b) (1). A PM10 hot-spot analysis was completed at the following location(s): _____ And the results are: _____
Comments (include LOS, if appropriate): The project is a bridge replacement and other roadway improvements. No impact on air quality is anticipated.	

C. Potential Ecological Constraints (check those that apply)			
<input checked="" type="checkbox"/>	Floodplains	<input type="checkbox"/>	Shellfish Habitat
<input checked="" type="checkbox"/>	Wetlands	<input checked="" type="checkbox"/>	Acid Producing Soils
<input type="checkbox"/>	Vernal Pools	<input type="checkbox"/>	Submerged Aquatic Vegetation
<input checked="" type="checkbox"/>	Waterbody:	<input type="checkbox"/>	Sole Source Aquifer
	<input type="checkbox"/> Category One	<input type="checkbox"/>	Forested Areas
	<input type="checkbox"/> Trout Production	<input type="checkbox"/>	Threatened and Endangered Species:
	<input type="checkbox"/> Trout Maintenance	<input type="checkbox"/>	<input type="checkbox"/> State-listed species
	<input checked="" type="checkbox"/> Non-Trout	<input type="checkbox"/>	<input type="checkbox"/> Federally listed species
<input type="checkbox"/>	Wild and Scenic River	<input type="checkbox"/>	Other (specify):
<input type="checkbox"/>	Essential Fish Habitat		

Federally Listed Threatened & Endangered Species Checklist:	
(Please see http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html for guidance on the current US Fish and Wildlife Service (USFWS) Consultation Procedures. County/municipal species lists are only valid for 90 days.)	
<input checked="" type="checkbox"/>	The proposed project is not located in a municipality with extant, historic, or potential occurrence of a federally listed species. The municipality list was checked within the last 90 days and documentation of this determination is included in the project file. No further action is required under the Endangered Species Act (ESA).

<input type="checkbox"/>	The proposed project is located in a municipality with extant, historic, or potential occurrence of a federally listed species. Habitat requirements for each of the species have been reviewed and the project's impact area (*i.e., action area) was assessed to determine whether it contains potentially suitable habitat. <i>Based on existing information or field surveys, the results revealed:</i>
<input type="checkbox"/>	The project's impact area (i.e., action area) does not contain potentially suitable habitat for a federally listed species. Documentation of this determination is in the project file. No further action is required under the ESA. Concurrence from the USFWS is not required.
<input type="checkbox"/>	The project's impact area (i.e., action area) does or may contain potentially suitable habitat for a federally listed species. <i>The assessment and all relevant project information:</i>
<input type="checkbox"/>	Have been submitted to the US Fish and Wildlife Service's NJ Field Office for ESA Section 7 consultation . Correspondence is attached. See comments below.
<input type="checkbox"/>	Will be submitted to the New Jersey Division of Land Use Regulation Program during the permitting process . Project requires authorization under the NJ Freshwater Wetlands Protection Act. See comments below.

*Action Area: The action area is defined by regulation as all areas to be affected **directly or indirectly** by the Federal action and **not merely the immediate area involved in the action** (50 CFR §402.02). This analysis is not limited to the "footprint" of the action nor is it limited by the Federal agency's authority. Rather, it is a biological determination of the reach of the proposed action on listed species. Subsequent analyses of the environmental baseline, effects of the action, and levels of incidental take are based upon the action area.

Conclusion:	
<input checked="" type="checkbox"/>	No significant impact anticipated
<input type="checkbox"/>	Further studies are needed to obtain permits. Project still satisfies CE criteria.
<p>Comments (briefly describe <i>all</i> potential ecological constraints): <i>An Ecological Assessment Technical Memorandum</i> was prepared by Dewberry in October 2006 in order to evaluate potential regulatory issues and/or ecological impacts associated with the proposed project. The New Jersey Department of Environmental Protection (NJDEP) Natural Heritage Program (NHP) and the United States Fish and Wildlife Service (USFWS) were contacted regarding the potential presence of Threatened and Endangered (T&E) species in the project area as part of this analysis. Their response letters, also from 2006, are included in Attachment B.</p> <p>As part of this Categorical Exclusion Document (CED) preparation, an information request was sent to the NJDEP NHP requesting updated information. A copy of this request is included in Attachment B. Following the USFWS updated procedures, their website was consulted to determine if Federally listed T&E species and their habitats are located in the project area. A summary of this additional consultation is provided in the sections below.</p> <p>Floodplains</p> <p>The NJDEP Flood Hazard Area Control Act (FHACA) Rules regulate both the Flood Hazard Area (FHA) and the Riparian Zone. The existing Cooper River Bridge and portions of the north and south roadway approaches are within the NJDEP regulated FHA for the Cooper River, or the inundation limits resulting from the 100-year storm plus 25% flood flow event. NJDEP FHA mapping has not been prepared by the NJDEP for this reach of the Cooper River to date. However, the Federal Emergency Management Agency has mapped the 100-year flood limits as part of the Flood Insurance Study prepared for Camden County, September 2007. This information was utilized by Dewberry to compute the NJDEP regulated FHA at the Cooper River Bridge, which is at an approximate elevation of 13.0 feet (NAVD, 1988). By comparison, the 100-year flood is at an approximate elevation of 11.3 feet at the bridge site.</p> <p>The FHA inundates the existing Route 30/130 Bridge over the Cooper River approach roadway beginning from approximately 200 feet south of South Park Drive, extending north past the bridge, North Park Drive, and the limits of the project, excluding the elevated bridge deck itself.</p> <p>Proposed work would be situated within areas regulated by the NJDEP FHACA Rules, impacting the Flood Hazard Area and Riparian Zone. A Flood Hazard Area Individual Permit (IP) will be prepared for the bridge reconstruction and approach roadway improvements, along with the storm sewer outfall replacement.</p>	

The Riparian Zone extends 150 feet from the top of channel bank along both sides of the Cooper River. The 150-foot limit is established based on the presence of acid producing geologic formations (Magothy and Merchantville Formations) within the Riparian Zone according to NJDEP GIS soils data. Proposed disturbance to vegetation is anticipated to exceed the maximum allowable thresholds for the Route 30/130 Bridge reconstruction over the Cooper River, thereby requiring creation or enhancement of 0.6-acre of vegetation within the Riparian Zone.

Wetlands

NJDEP Geographic Information System (GIS) data shows wetlands as occurring within the project area. These wetlands are classified as saturated Palustrine Forested Broad-Leaved Deciduous (PFO1B), saturated Palustrine Emergent Broad-Leaved Deciduous (PEM1B), seasonally flooded Palustrine Emergent Broad-Leaved Deciduous (PEM1C), and seasonally flooded Palustrine Scrub/Shrub Broad-Leaved Deciduous (PSS1C). The NJDEP GIS data also identified two State open water classifications for open water bodies within the study area. These are the Cooper River, which is classified as permanently flooded Lacustrine Littoral Open Water, and ponded water systems classified as permanently flooded Palustrine Open Water. The NJDEP GIS data also provided the location of Cooper River's head-of-tide, which is located approximately 0.8-mile downstream (northwest) of the Routes 30/130 bridge crossing over the Cooper River. Therefore, the proposed construction activities involve a non-tidal portion of the Cooper River.

A delineation of wetlands and State open waters within the project area was performed on April 4, 2006 according to the procedures described in the "1989 Federal Manual for Identifying and Delineating Jurisdictional Wetlands." This delineation identified the Cooper River as a jurisdictional State open water with floodplain wetlands that are highly disturbed from development of the park, as well as from commercial development. Wetlands were identified in all four quadrants of the Routes 30/130 Cooper River Bridge crossing. The Cooper River itself is considered a regulated State open water and all of the wetlands were connected to the river and part of the floodplain of this waterbody. Large portions of these wetlands are atypical in that the vegetation is made up of species consistent with that of a landscaped park and are covered with maintained grass vegetation and park amendments (trails, benches, parking, etc.). These wetlands exhibit only two of the criteria normally necessary for an area to be deemed a jurisdictional wetland (i.e., hydrophytic vegetation, hydric soils, and evidence of wetland hydrology). However, regardless of its maintained condition, the NJDEP will still assume jurisdiction over these historic/disturbed wetlands due to the presence of hydric soil conditions and evidence of wetland hydrology.

Roadway improvements will widen the roadway (Routes 30/130) and additional pilings will be placed in the Cooper River in order to support the new bridge structure. Approximately 0.3-acre of wetlands and State open waters would be impacted by the proposed improvements. An application for NJDEP Freshwater Wetlands General Permits will be prepared for the bridge reconstruction, storm sewer outfall construction and trail improvements within Cooper River Park.

Vernal Pools

No vernal pools were identified during the wetland delineation activities and they are not a potential ecological constraint for the proposed project.

Waterbody

The Cooper River, a non-tidal, State open water, flows through the proposed project area. The NJDEP has classified the Cooper River as FW2-NT waters, meaning freshwaters with a non-trout production designation. FW2 refers to a general surface water classification applied to freshwaters not designated as FW1 or Pinelands Waters, and NT refers to non-trout production waters. This system is used to identify designated "Surface water classifications for the waters of the State of New Jersey" (N.J.A.C. 7:9B).

Wild and Scenic River

The National Wild and Scenic Rivers System website was consulted to determine if the Cooper River is designated as a Wild and Scenic River. According to the website, the Cooper River has not been designated as Wild and Scenic. Therefore, Wild and Scenic Rivers are not considered to be a potential ecological constraint.

Essential Fish Habitat

No adverse impacts Essential Fish Habitat will result from the proposed project. According to the National Aeronautic and Atmospheric Administration's (NOAA) "Guide to Essential Fish Habitat Designations in the

Northeastern United States,” the Cooper River does not contain Essential Fish Habitat. Therefore, Essential Fish Habitat is not considered to be a potential ecological constraint.

Shellfish Habitat

The proposed project is located in fresh, non-tidal waters and is not suitable shellfish habitat. Additionally, the NJDEP Bureau of Geographic Information Systems (GIS) Shellfishing Classification data layer was consulted. This data layer did not show the Cooper River as containing shellfishing areas. Therefore, shellfish habitat is not considered to be a potential ecological constraint.

Acid Producing Soils

Soils within the project area are mapped as Howell-Urban Land association. Both the Howell and Urban series soils are found to be extremely acidic. Areas to be excavated during the proposed project’s construction will be evaluated for the presence of acid-producing deposits, and where encountered, will be addressed with mitigation standards as outlined by the NJDEP Division of Water Resources.

Submerged Aquatic Vegetation

The proposed project is associated with a non-tidal waterbody; therefore, submerged aquatic vegetation is not considered to be a potential ecological constraint.

Sole Source Aquifer

The proposed project lies within the Coastal Plain physiographic province of New Jersey. The stratigraphy underlying the proposed project alignment consists of the Merchantville Formation, a shelf deposit consisting of black, massive glauconitic micaceous clay and silty clay 50 to 60 feet thick. The Magothy Formation underlies the Merchantville Formation. The Magothy Formation is part of the New Jersey Coastal Plain Aquifer System. This system was designated as a Sole Source Aquifer by USEPA in 1988. The Sole Source Aquifer Program is a federal program developed to protect sole or primary source aquifers, and to foster the development of state and local protection programs for those aquifers. However, because the Merchantville Formation provides a confining layer above the Magothy Formation, potential impacts to the sole source aquifer are extremely low. In addition, the area to be disturbed during the construction phase is relatively small and the anticipated depth of excavation would not breach the Merchantville Formation. Therefore, Sole Source Aquifers are not considered to be a potential ecological constraint.

Forested Areas

Two forested wetland areas were identified within the project area and are located near the Cooper River (south of the river and east and west of Routes 30/130). Initial estimates indicate that the proposed project will result in less than 0.5-acre of deforestation. As a result, no reforestation will be required in accordance with the New Jersey No Net Loss Reforestation Act (P.L. 2001 Chapter 10).

Threatened and Endangered Species

In 2006, The NJDEP Natural Heritage Program (NHP) was contacted for a review of the Natural Heritage Database for T&E plants and animals or natural communities on the project site or in the immediate area. The NHP identified habitat for the eastern box turtle (*Terrapene carolina*), listed as a species of Special Concern, within the vicinity of the project area. Additionally, the NHP identified that bald eagle (*Haliaeetus leucocephalus*) foraging area is located within the vicinity of the project area. These fauna were not observed during the wetland delineation conducted on April 4, 2006; nor was a bald eagle nest observed at this time. A data request to the NJDEP NHP for current information on State T&E species on or near the site has been submitted; however, no response has been received to date. The more current information provided by the NJDEP NHP will need to be consulted to determine if State T&E species are an ecological constraint of the proposed project.

The USFWS was also contacted in 2006 in regard to the presence of Federally listed T&E species in the project area. The USFWS response letter states that “No active eagle nests are known within the immediate vicinity of the proposed project site; thus, the project is not likely to adversely affect nesting bald eagles.” In addition to the bald eagle reference, the USFWS also identified that the Partners for Fish and Wildlife Program had “...recently completed a habitat restoration project along the northern and southern banks of Cooper River immediately adjacent to the proposed project area.” This restoration included native tree and shrub plantings and the removal of invasive vegetation, specifically Japanese knotweed (*Polygonum cuspidatum*). This letter specifically states that “To

maintain the restoration conditions of the banks along the Cooper River, the Service requests planting trees and shrubs within any disturbed areas once project activities are completed. In addition, the Service requests the use of native vegetation to prevent the invasion of Japanese knotweed in the project area.”

In order to obtain more current USFWS information on Federally listed T&E species within the project area, the current USFWS procedures for determining if an action is subject to a Section 7 Consultation pursuant to the Federal Endangered Species Act (ESA) were consulted. Following these procedures, the USFWS website was utilized to determine if Federally listed T&E species and their habitats are present in the municipalities which the proposed project is located. According to the website, the proposed project is not located within or adjacent to a municipality with extant, historic, or potential occurrence of a federally listed species; and therefore, no further action is required under the ESA and Federal T&E species are not considered to be a potential ecological constraint. The USFWS’s request to restore disturbed areas following the completion of proposed project activities would be performed.

D. Anticipated Environmental Permits/Approvals/Coordination (check those that apply)	
<input type="checkbox"/> US Coast Guard	<input type="checkbox"/> NJDEP Pollutant Discharge
<input type="checkbox"/> USACOE Section 10 (Navigable Waters)	<input type="checkbox"/> NJDEP Dam Safety
<input type="checkbox"/> USACOE Section 404 (Nationwide)	<input type="checkbox"/> NJDEP Remediation Approval
<input type="checkbox"/> USACOE Section 404 (Individual)	<input type="checkbox"/> NJDEP Tidelands Conveyance
<input type="checkbox"/> USEPA Sole Source Aquifer	<input checked="" type="checkbox"/> EO 11990 Wetlands
<input checked="" type="checkbox"/> NJDEP Freshwater Wetlands—GP	<input checked="" type="checkbox"/> EO 11988 Floodplains
<input type="checkbox"/> NJDEP Freshwater Wetlands—IP	<input type="checkbox"/> NJDEP Highlands Preservation Area: <input type="checkbox"/> Exempt <input type="checkbox"/> Highlands Applicability Determination <input type="checkbox"/> Highlands Preservation Area Approval
<input type="checkbox"/> NJDEP Transition Area Waiver	
<input type="checkbox"/> NJDEP Coastal Wetlands	
<input type="checkbox"/> NJDEP Waterfront Development	
<input type="checkbox"/> NJDEP CAFRA	<input type="checkbox"/> USDA-Farmland Conversion (Form AD 1006)
<input type="checkbox"/> NJDEP Flood Hazard Area Permit—GP	<input type="checkbox"/> NJ Agriculture Development Area
<input checked="" type="checkbox"/> NJDEP Flood Hazard Area Permit—IP	<input checked="" type="checkbox"/> NJDEP Green Acres Program/State House Comm.
<input checked="" type="checkbox"/> NJDEP Stormwater Management: <input checked="" type="checkbox"/> ≥ 0.25 acre impervious surface <input checked="" type="checkbox"/> ≥ 1.0 acre disturbance <input type="checkbox"/> Unknown at this time <input type="checkbox"/> Approval through NJDEP LURP Permit (or) <input type="checkbox"/> NJDOT self-certification	<input type="checkbox"/> National Marine Fisheries Service
	<input type="checkbox"/> NJDEP Parks & Forestry (PL 2001 Chapter 10 Reforestation)
	<input type="checkbox"/> D&R Canal Commission
	<input type="checkbox"/> Meadowlands Commission
	<input type="checkbox"/> Pinelands Commission
<input type="checkbox"/> NJPDES Construction Activity Stormwater GP (RFA)	<input checked="" type="checkbox"/> NJDEP Threatened & Endangered Species Coordination
<input checked="" type="checkbox"/> NJDEP Water Quality Certificate	<input type="checkbox"/> Other (specify):

Comments: The project complies with Executive Order (EO) 11990, Protection of Wetlands, in order to avoid to the extent possible adverse impacts associated with the destruction or modification of wetlands. The Land Use Regulation Program within NJDEP continues to be the lead agency for establishing the extent of state regulated wetlands and waters. The wetlands delineation within the project corridor was completed in April 2006 and the total disturbance to freshwater wetlands and State open waters is estimated to be 0.3-acre. An application for Freshwater Wetlands General Permits will be prepared for the bridge reconstruction, storm sewer outfall construction and trail improvements within Cooper River Park.

The project complies with EO 11988, Floodplain Management, in order to avoid to the extent possible adverse impacts associated with the occupancy and modification of floodplains and to support floodplain development, whenever practicable. New Jersey regulates construction in the floodplain under the Flood Hazard Area Control Act, N.J.S.A. 58:16A-50 et seq., and its implementing rules in N.J.A.C. 7:13. The Land Use Regulation Program within NJDEP is the lead agency. The project is situated within the Cooper River watershed. Portions of the project, including the Route 30/130 Bridge over the Cooper River and portions of the approach roadways, are situated within the 100-year floodplain and the NJDEP regulated Flood Hazard Area for the Cooper River. A Flood Hazard Area

Individual Permit (IP) will be prepared for the bridge reconstruction and approach roadway improvements, along with the storm sewer outfall replacement.

In conjunction with the Flood Hazard Area IP, compliance with Riparian Zone requirements will be required. The Riparian Zone is 150 feet in width as measured from the top-of-bank from each side of the Cooper River within the project area. The width is based upon the presence of acid producing geologic formations as per NJDEP mapping. Proposed disturbance to vegetation is anticipated to exceed the maximum allowable thresholds for the Route 30/130 Bridge reconstruction over the Cooper River, thereby requiring mitigation for creation or enhancement to vegetation for a 0.6-acre area within the Riparian Zone.

The project is situated within the Cooper River watershed, with portions of the alignment from Haddon Avenue south situated within the Newton Creek subwatershed, and portions to the north situated within the Cooper River watershed. The overall project disturbance is greater than one-acre, and the portions lying within the Cooper River subwatershed result in greater than 0.25-acre of net additional impervious cover. Therefore, compliance with the Stormwater Management Rules at N.J.A.C. 7:8 is required including water quality treatment, water quantity control and groundwater recharge.

The project complies with P.L. 2001 Chapter 10 concerning reforestation of land owned or maintained by a State Agency and scheduled for deforestation.

E. Cultural Resources	
Technical Findings:	
<input type="checkbox"/>	Project is not an undertaking for Section 106 purposes; concurrence has been received from FHWA.
<input type="checkbox"/>	No Effect per FHWA/SHPO Agreement of 7/6/00; subject to conditions identified in the Agreement.
<input type="checkbox"/>	No Section 106 Consultation per 5/25/01 SHPO concurrence with <i>Section 106 Compliance Procedures, Federally Funded Drainage Improvement Program</i> ; subject to conditions identified in the Agreement.
<input type="checkbox"/>	No Effect to significant properties if they exist in APE per 36CFR800.3(a)(1) with SHPO concurrence. (Because the Section 106 regulations allow for a level of effort for conducting and evaluating cultural resources to be commensurate with the undertaking, this category of finding was developed to be used for certain projects when no cultural resources survey has been conducted; and self-imposed conditions, if applicable, are presented as part of the undertaking, e.g., Pipeline 3 or other small-scale projects.)
<input type="checkbox"/>	No National Register (NR) listed or eligible properties in APE (Section 106 Findings = No Historic Properties Affected).
<input checked="" type="checkbox"/>	National Register listed/eligible properties exist within APE (<i>see consultation summary below</i>).

Archaeology	Architecture				Section 106 Finding
	Bridge	Building	District	Other	
			Camden and Atlantic Railroad Historic District		NR listed/eligible property(ies)— No Historic Properties Affected
				Harleigh Cemetery	NR listed/eligible property(ies)— No Adverse Effect (NAE)
					NR listed/eligible property(ies)— NAE with conditions
			Cooper River Park Historic District		NR listed/eligible property(ies)— Adverse Effect

	Section 106 Consultation Summary	Date
<input checked="" type="checkbox"/>	FHWA concurred with Adverse Effect Finding	January 15, 2008
<input checked="" type="checkbox"/>	SHPO provided Section 106 consultation comments	July 18, 2008
<input type="checkbox"/>	FHWA concurred with No Adverse Effect with Conditions	
<input checked="" type="checkbox"/>	ACHP notified of Adverse Effect	April 1, 1997
<input checked="" type="checkbox"/>	ACHP responded to notification (check one/enter date): <input type="checkbox"/> ACHP will participate in consultation <input checked="" type="checkbox"/> ACHP declined to participate in consultation	No response was received from the ACHP
<input checked="" type="checkbox"/>	MOA executed by FHWA (check one/enter date): <input checked="" type="checkbox"/> MOA filed with ACHP <input type="checkbox"/> ACHP accepted/signed MOA	January 5, 2009

Comments (include MOA stipulations or other conditions, if applicable) : The FHWA, the New Jersey State Historic Preservation Officer (NJSHPO), the Advisory Council on Historic Preservation (Advisory Council), and the NJDOT executed a Programmatic Agreement in November of 1996 which stipulates how FHWA's Section 106 responsibilities for NJDOT-administered Federal aid projects will be satisfied. In accordance with that agreement, the NJDOT has consulted with the NJSHPO in order to determine the Area of Potential Effect (APE), to identify significant National Register eligible and listed properties, and to assess the effects of the project on both eligible and listed properties within the APE pursuant to the requirements of 36 CFR Part 800. The NJSHPO July 18, 2008 consultation letter is included in Attachment C.

The consultation has resulted in a determination that the following three properties—located within the project limits of **Phase B** only—are eligible for or are listed in the National Register of Historic Places:

- Camden and Atlantic Railroad Historic District (SHPO Opinion: 9/17/01)
- The Harleigh Cemetery (SHPO Opinion: 6/15/95)
- Cooper River Park Historic District (SHPO Opinion: 2/28/94)

The FHWA has determined that the construction of this project as proposed will have No Effect on the Camden and Atlantic Railroad Historic District, No Adverse Effect on the Harleigh Cemetery, and an Adverse Effect on the Cooper River Park Historic District.

The following Stipulations for Phase A of the subject project, the Route 30/130 Collingswood Circle Elimination Project, were carried out as required per the September 26, 1996 Memorandum of Agreement, which did not contain a sunset clause:

- The NJDOT documented the Collingswood Circle Pure Oil Service Station (Wayne's Used Cars), Collingswood Circle (White Horse Pike Rond Point), and Crescent Boulevard Bridge (Structure No. 0405-153) to Level II of the Historic American Engineering Record (HAER) standards. The documentation was sent to the Chesapeake/Allegheny System Support Office of the National Park Service in September 1997 and was accepted as complete on February 27, 1998. Copies were also sent to the NJSHPO and the NJ State Library Archives in September 1997.
- A marketing plan was developed in consultation with the NJSHPO for the Collingswood Circle Pure Oil Service Station (Wayne's Used Cars) in 1997; the Station was successfully marketed to private individuals for use in Watertown, NY.
- The archeological survey for the Old Black Horse Pike Drive-Inn that was to be conducted as part of Phase A was instead conducted as part of a completely separate project and no significant archeological resources were encountered.

The Route 30/130 Bridge over the Cooper River was originally to be reconstructed during Phase A, but now requires *complete replacement*, which will occur as part of Phase B. Removing the bridge, a contributing resource to the

Cooper River Park Historic District (HD), results in an Adverse Effect to the historic district; design features to complement the historic district will be implemented. The new bridge will be designed to include compatible historic elements such as the construction of the bridge on the historic footprint; use of an aesthetic parapet (e.g., Texas type railing), tinted and form-lined parapets and other design features to complement the above ground features of the Cooper River Park Historic District, where appropriate.

The NJDOT and FHWA have considered alternatives to avoid or minimize the adverse effects and found that they are not feasible. They have identified and coordinated with consulting parties to develop a plan to mitigate the adverse effects.

A Memorandum of Agreement (MOA) has been prepared between FHWA and the NJSHPO in order to take into account the effect of the undertaking on historic properties (see Attachment D). Based on the MOA, the FHWA will ensure that the following measures are carried out:

1. Aesthetics: The new bridge will be designed to include an aesthetic parapet that will emulate the look of the existing (e.g., Texas type railing), tinted concrete for the bridge abutments and wingwalls, and other design features to complement the above-ground features of the Cooper River Park Historic District, where appropriate; lighting installed over the Route 30/130 Bridge over the Cooper River will consist of powder-coated black tear-drop lights, as used in Phase A of the referenced project.
2. Pennsylvania Mica Staircases: The two (non-contributing) Pennsylvania mica staircases located south of South Park Drive and at the bridge’s southeast quadrant, which will be removed, will be carefully disassembled; salvaged materials will be reused in the repair/reconstruction of the debilitated (contributing) Pennsylvania mica staircase located at the northeast quadrant of the bridge crossing.
3. Signage: An interpretative sign concerning the history of the Cooper River Park Historic District will be developed in consultation with the SHPO, and placed at the Northeast Quadrant of the bridge crossing on NJDOT right-of-way, at an appropriate location at the top of the staircase.
4. National Register Nomination: A draft final National Register nomination will be prepared for the Cooper River Park Historic District. The historic district was determined to be eligible under Criterion A in the areas of community planning and development and entertainment and recreation as an example of an early-twentieth-century park. Under Criterion C, the historic district is eligible for its landscape architecture that embodies the design concepts heralded by the Olmstead Brothers at the turn of the century and for its embodiment of the work of a master, Charles W. Leavitt and Son, one of the most prominent early-twentieth-century landscape architecture firms in the United States. The historic district qualifies for listing in the National Register because it incorporates scenic overlooks, docks, footbridges, footpaths, and staircases into its design. Important aspects of integrity include setting, design, location, and materials.
5. Archeological Monitoring Program: An archeological monitoring program has been developed; the program was approved by SHPO on September 17, 2008.

F. Section 4(f) Involvement

Section 1: Historic Sites

<input type="checkbox"/>	No Section 4(f) Involvement
<input type="checkbox"/>	Project results in a “constructive use” of Section 4(f) property.
<input checked="" type="checkbox"/>	Project results in a use of Historic site(s) on or eligible for the National Register of Historic Places (check one below):
<input checked="" type="checkbox"/>	Section 4(f) Involvement. Project is covered under de minimis Evaluation of Impacts and all applicability criteria have been met, including concurrence <i>first</i> by the FHWA that the project meets the applicability criteria, and <i>then</i> concurrence by SHPO with the “No Effect” or “No Adverse Effect” determination <i>after</i> they are notified of the intent to use a <i>de minimis</i> finding.
<input type="checkbox"/>	Section 4(f) Involvement. Project is covered under the Nationwide Section 4(f) Programmatic Evaluation for minor involvement and all applicability criteria have been met, including

<input type="checkbox"/>	concurrence by the SHPO (or ACHP) with the “No Effect” or “No Adverse Effect” determination.
<input type="checkbox"/>	Section 4(f) Involvement. Project is covered under the Nationwide Section 4(f) Programmatic Evaluation for Net Benefits and all applicability criteria have been met, including notification to and concurrence by the FHWA with the determination.
<input type="checkbox"/>	Section 4(f) Involvement. Project has an “Adverse Effect” determination. Individual Section 4(f) was prepared.
Comments: Impacts to the Harleigh Cemetery are covered under <i>de minimis</i> Evaluation of Impacts. Documentation attached.	

Section 2: Historic Bridges	
<input type="checkbox"/>	No Section 4(f) Involvement
<input checked="" type="checkbox"/>	Section 4(f) Involvement. Project is covered under the Nationwide Section 4(f) Programmatic Evaluation for Historic Bridges .
Comments: The proposed project involves the replacement of the Route 30/130 Bridge over the Cooper River, a contributing resource to the Cooper River Park Historic District.	

Section 3: Publicly Owned Park, Recreation Area, Wildlife or Waterfowl Refuge	
<input type="checkbox"/>	No Section 4(f) Involvement
<input type="checkbox"/>	Project results in a “Constructive Use” of Section 4(f) property (fill out Site Information below)
<input checked="" type="checkbox"/>	Project requires acquisition from publicly owned recreation land (fill out Site Information below):
<input type="checkbox"/>	Section 4(f) Involvement. Project is covered under <i>de minimis</i> Evaluation of Impacts and all applicability criteria and conditions have been met, including concurrence <i>first</i> by the FHWA that the project meets the applicability criteria, and <i>then</i> notification to the officials with jurisdiction of the intent to use a <i>de minimis</i> finding.
<input checked="" type="checkbox"/>	Section 4(f) Involvement. Project is covered under Nationwide Section 4(f) Programmatic Evaluation for minor involvement and all applicability criteria and conditions have been met, including concurrence by the officials having jurisdiction over the property.
<input type="checkbox"/>	Section 4(f) Involvement. Project is covered under the Nationwide Section 4(f) Programmatic Evaluation for Net Benefits and all applicability criteria have been met, including notification to and concurrence by the FHWA with the determination.
<input type="checkbox"/>	Section 4(f) Involvement. Nationwide Section 4(f) Programmatic applicability criteria were not met; Individual Section 4(f) Evaluation was prepared.
Site Information (for projects involving “Constructive Use” or acquisition from publicly owned recreation land, wildlife or waterfowl refuge):	
Name of Site (use local name): <u>Cooper River Park</u>	
Lot and Block: <u>Block 1.01, Lot 1; Block 1279, Lot 2.01; Block 6405, Lot 1; Block 6404, Lot 1; and 0.02 acre from property located along Route 30/130 SB, north of North Park Drive (no Block or Lot Nos. in Deed Book (Deed Book 842, page 250).</u>	
Total acreage of site: <u>346.55 acres</u>	
Acreage of site affected (acquisition and permanent easements): <u>0.89 acre</u>	
<input checked="" type="checkbox"/>	Federal encumbrances involved (e.g., Wild and Scenic Rivers Act, Land and Water Conservation Fund Act, Rivers and Harbors Act).

Comments: The proposed project involves a strip taking from the Cooper River Park, which is a publicly-owned park. In addition, Cooper River Park has utilized funds provided by the National Park Service's Land and Water Conservation Fund (LWCF). Coordination with the NJ Department of Environmental Protection's (NJDEP) Green Acres Program has been ongoing and will continue until the Green Acres process is complete. Since NJ's contact for the LWCF is NJDEP's Green Acres Program, coordination with LWCF to ascertain their position on the land conversion/transfer will occur via the Green Acres process.

Section 4: Independent Walkway & Bikeway Construction Projects

- No Section 4(f) Involvement
- Section 4(f) Involvement. Project is covered under the **Nationwide Section 4(f) Programmatic Evaluation**. Project requires use of recreation and park areas established and maintained primarily for active recreation, open space, or similar purposes. All applicability criteria have been met, including approval in writing by the official with jurisdiction over the property that the project is acceptable and consistent with the designated use of the property and that all possible planning to minimize harm has been accomplished in the location and design of the bikeway or walkway facility.

Comments:

G. Hazardous Materials and Landfills

- Involvement with known or suspected contaminated site.
- Involvement with underground storage tanks.

Conclusion:

- Low potential for involvement with contamination; no further investigation required.
- Further investigation and/or sampling required to determine extent of involvement with contamination. Project still meets FHWA criteria for a CE.

Comments: A *Hazardous Waste Screening Technical Memorandum (HWS)* was prepared by Dewberry in December 2006 in order to assess and document the project's potential involvement with known or suspected contaminated sites, underground storage tanks (USTs), or other hazardous waste. Dewberry performed field reconnaissance, reviewed historical documents, reviewed federal and state records, made inquiries with state and local agencies and made inquiries of NJDEP databases. Twelve Areas of Concern (AOCs) were identified including properties with soil contamination; potential asbestos-containing material or lead-based paint sites; properties with registered USTs; properties on NJDEP's Known Contaminated Site List; and properties with the potential for contamination based on current land use.

A Limited Site Investigation (LSI) dated July 2008 was performed on AOCs previously identified in the 2006 HWS report to assess whether contamination may be encountered during construction and to identify the potential presence of USTs or other subsurface anomalies that may adversely impact construction. The LSI scope of work included performing a geophysical survey and collecting soil and groundwater samples for laboratory analysis. During the geophysical survey, anomalies suspected to be USTs were identified directly adjacent to the acquisition area at the First Quality Auto Sales property. The analytical results from the Carr Hagner, Inc. property identified lead concentrations in soil in excess of the NJDEP Soil Cleanup Criteria (SCC) and lead and dieldrin concentrations in groundwater above the NJDEP Class II-A Groundwater Quality Standards (GWQS). At the First Quality Auto Sales property, benzene was identified in soil in excess of the NJDEP Impact-to-Groundwater SCC. The groundwater sample collected from the Camden County Park property contained concentrations of arsenic, beryllium, chromium, and lead in excess of the NJDEP GWQS. All other analytical results identified no concentrations greater than the NJDEP's SCC and GWQS.

The property owner of First Quality Auto Sales should be contacted by the NJDEP to investigate the presence and status of potential USTs suspected at this site.

A remedial investigation at the Carr Hagner, Inc. property is recommended to delineate the horizontal and vertical extent of the lead contamination in the surface soils. During construction at Carr Hagner, Inc., the lead-contaminated

soils will be excavated and disposed off site at a permitted facility, in accordance with the facility's sampling frequency and analytical requirements. The work will be conducted per a NJDEP-approved remedial action workplan (RAW), NJDOT-developed environmental specifications, an NJDOT-approved material handling plan, as well as a health and safety plan (HASP) prepared by the contractor under the provisions of the Occupational Safety and Health Administration (OSHA) 40 Code of Federal Regulations (CFR) 1910.120 and 1926. Groundwater is not expected to be encountered during construction and no further investigation of groundwater is recommended for this site.

Soils excavated from the proposed acquisition area on the First Quality Auto Sales property will be screened for physical evidence of petroleum contamination and managed in accordance with a NJDEP-approved RAW, NJDOT-developed environmental specifications, NJDOT-approved material handling plan, as well as a HASP prepared by the contractor under the provisions of the OSHA 40 CFR 1910.120 and 1926.

The groundwater sample from the Camden County Park property was collected as a grab sample and, as a result, the presence of metals may be attributable to suspended soil particles in the sample and may not necessarily be representative of the groundwater quality at the site. If groundwater is encountered during roadway or drainage excavation activities adjacent to the Camden County Park property and dewatering is required, the NJDOT will manage the groundwater effluent according to the results of the LSI. An appropriate groundwater management plan for the dewatering effluent will be developed by the NJDOT's contractor, prior to construction, to address the potential contaminants that may be encountered during this work.

H. Socioeconomics

The project will **not** result in any significant socioeconomic impacts.

Comments: A *Socioeconomic, Land Use and Environmental Justice Impacts Technical Memorandum* was prepared by Dewberry in October 2006 in order to identify and evaluate potential socioeconomic and land use impacts stemming from the proposed project. The first phase consisted of documenting the existing character and significant features of the study area, reviewing pertinent planning and zoning documents, and identifying development proposals within the study area. In addition, field surveys were conducted to determine existing land use, and the status of any current development proposals. The second phase of the study consisted of an assessment of the proposed project's impacts. Based on this assessment, no significant adverse impacts are anticipated as a result of the proposed project.

Residential Impacts

No residences will be displaced under the proposed project. Construction period activities may result in temporary impacts to air quality, and ambient noise and/or vibration levels. Specifications for all contracts will be drafted requiring contractors to comply with all applicable laws, regulations, and orders to reduce any impacts. Such impacts can be adequately mitigated by confining construction to daytime hours, and by using appropriate mufflers and vibration dampers designed for the equipment used at the site. As a result, adverse impacts of construction activities to residents proximate to the project area will not be significant.

Impacts to Community Facilities

Two community facilities are located in the study area: Cooper River Park and Harleigh Cemetery. Any construction within Cooper River Park must be submitted for approval of the County Parks Commission, New Jersey Department of Environmental Protection, Green Acres and the County Engineer. Due to Harleigh Cemetery's close proximity to Routes 30/130, the proposed project will acquire right-of-way and easements from the property. Although land will be acquired from Cooper River Park and Harleigh Cemetery, no change in access will occur and mitigation measures will be identified through agency coordination.

Business Impacts

The study area includes several highway-oriented businesses. The proposed project will require the displacement of two businesses located within the study area—Roney's Restaurant and Carr Hagner, Inc. Roney's Restaurant is proposed to be a full acquisition and the business will need to seek a new location or cease its operations when construction of the proposed project begins. Carr Hagner, Inc., has also been proposed to be a full acquisition, but plans to relocate the business are unknown at this time.

All project-related relocation payments and services are provided pursuant to the Federal Uniform Assistance and Real Property Acquisition for Federal and Federally Assisted Programs Act of 1970, as amended in the Federal Uniform Act Amendment, effective March 2, 1989 (Chapter 50, New Jersey Public Law of 1989). This law is designed to ensure the prompt and equitable relocation and reestablishment of businesses displaced as a result of federally funded projects. In view of the requirements of this law, the NJDOT Bureau of Property and Relocation offers a Relocation Assistance Program. This program offers services to businesses, including assistance in finding new locations, reimbursement of moving expenses, and allowances in lieu of moving expenses.

The proposed project will also require easements and partial acquisitions of narrow strips of property at several locations along Routes 30/130 and other roadways within the project area. Generally, these partial takings will be necessary for changes to the existing roadway alignment or to provide sidewalks. It is not anticipated that these property acquisitions will decrease the number of off-street parking spaces or hinder access to the existing buildings. All businesses will be able to continue their operations. As a result, it is not anticipated that these partial acquisitions will result in any significant adverse impacts to the continued operation of the affected properties and business displacement impacts are not considered to be significant.

I. Environmental Justice

- Project will have **no** disproportionately high or adverse effects on low income and/or minority communities.
- Project will have disproportionately high and adverse effects on low income and/or minority communities.

Conclusion:

- Project is in compliance with the goals of Executive Order 12898 and the requirements of the Civil Rights Act of 1964.
- Project is in compliance with the goals of Executive Order 12898 and the requirements of the Civil Rights Act of 1964, through the identification of measures to address disproportionate effects, including actions to avoid or mitigate them. Project satisfies CE criteria.

Comments: Potential Environmental Justice impacts were considered in a *Socioeconomic, Land Use and Environmental Justice Impacts Technical Memorandum* prepared by Dewberry in October 2006. According to the Technical Memorandum, the project area neighborhoods consist of those portions of the study area within Block Group 5 in Census Tract 6014 in Camden, Block Group 1 in Census Tract 6025.01 in Pennsauken, and Group 1 in Census Tract 6042 in Collingswood. Block Group 5 in Census Tract 6014 (Camden) contains more than 90 percent minority populations with substantial groups of Black, Asian, Other, and Hispanic populations. Block Group 1 in Census Tract 6025.01 (Pennsauken) contains significant minority populations (nearly 50 percent). Only about 20 percent of the residents in Block 1 in Census Tract 6042 (Collingswood) belong to minority populations.

The 2000 U.S. Census data indicated that low-income populations living within the project study area are similar to those living in the surrounding area for Camden. However, poverty levels in Block Group 1 Census Tract 6025.01 and Block Group 1 Census Tract 6042 fall below the Camden County average, making them similar to or less than the surrounding population.

No significant adverse impacts to minority populations or businesses within the project study area are anticipated. There are no adverse impacts to the portion of the project study area located in Camden, which has the highest percentage of minority populations. The residential area is confined to the northwest corner of the census track, so the minority population will not be affected by the proposed construction. Phase B is concerned with the replacement of the Cooper River Bridge, which is located in a commercial/open space environment. Any impacts to residences located in these census tracts will be limited to temporary construction impacts.

When the construction staging plan has been completed, project area residents will be informed before construction begins through press releases and notices sent to the City and Town Halls, area libraries, and park officials.

J. Public Reaction (briefly describe input from the Office of Community Relations or current status of public reaction):

A Local Officials Briefing with representatives from the Borough of Collingswood and the Township of Pennsauken was held in November 2003. Representatives from the City of Camden were invited but did not attend. In addition, a Public Information Center was held in February 2004.

As part of the Section 106 process, the FHWA has consulted with the NJDOT, NJSHPO, Borough of Collingswood, Township of Pennsauken, City of Camden, Camden County, and Camden County Department of Parks to develop a plan to mitigate the adverse effects of the proposed project.

In addition, as part of the Section 106 process, NJDOT has solicited comments from the Camden County Department of Parks, Harleigh Cemetery and Crematory, Clerk/Borough of Collingswood, Clerk/Township of Pennsauken, Camden County Engineer, Historic Review Committee, Camden County Historical Society, Pennsauken Historical Society, Camden County Cultural & Heritage Commission, Archaeological Society of New Jersey, Newton Colony Historical Society, Camden County Improvement Authority, Friends of the Collings-Knight House, Camden City Business Administrator, PATCO Hi-Speed Line, and the Collingswood Library. Comments have been received from the Camden County Department of Parks, which stated they preferred a single-span bridge design so recreational boats could easily travel under the bridge, and that they do not want any stormwater basins located on park property.

K. Environmental Commitments (refer to MOA stipulations or other conditions noted in Section D, if applicable; permit conditions, etc.):

A Memorandum of Agreement (MOA) has been prepared between FHWA and the NJSHPO in order to take into account the effect of the proposed project on historic properties. Stipulations from the MOA are included in Section E.

The proposed project will comply with the requirements of all anticipated environmental permits and approvals indicated in Section D.

DETERMINATION OF CATEGORICAL EXCLUSION

Project name and location: Route 30/130 Collingswood/Pennsauken (Phase B)
Borough of Collingswood, City of Camden, Township of Pennsauken
Camden County

CE #: 771.117(d)(1) for modernization of highway, and (3) for bridge replacement

The proposed project satisfies the Categorical Exclusion definition outlined in 23 CFR 771.117 (a) and will not result in significant environmental impacts.

Paula _____ 4/6/09
Project Manager, Division of Project Management Date

Recommended by: *John Asadpour* _____ 1/6/2009
Environmental Team Leader Date

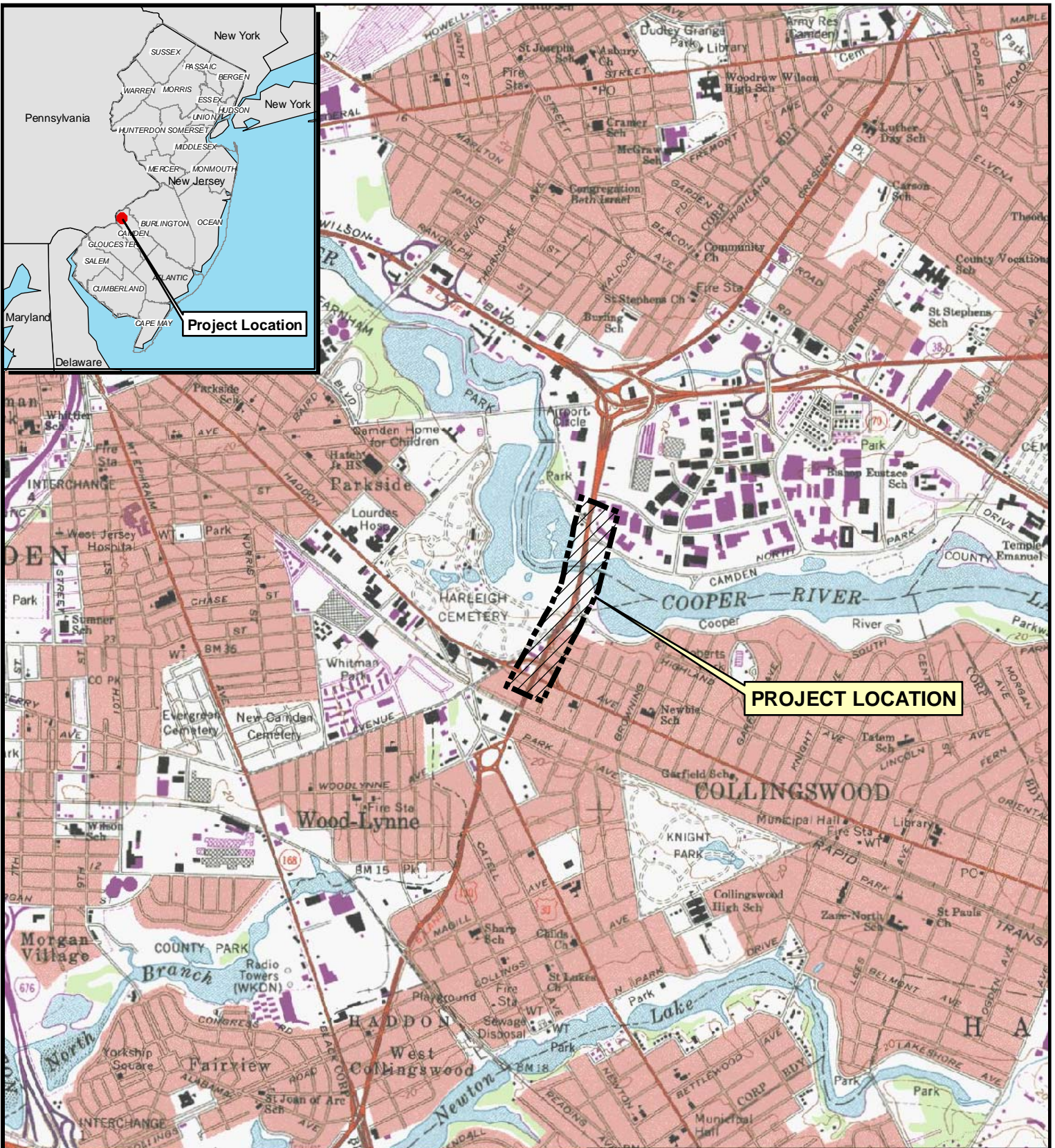
Certified
(or)
Approved *[Signature]* _____ 1.6.09
Manager, Bureau of Environmental Program Resources Date

Concurrence
(non-self certified CEs) *Math Zoh* _____ 1/12/09
Division Administrator, Federal Highway Administration Date

enclosures (please include any correspondence referenced in the CED):

- Project Location Map
- NJ Natural Heritage Program letter
- USFWS coordination letter(s)
- NMFS coordination letter
- SHPO Eligibility & Effects concurrence letter
- Signed MOA
- Final Nationwide Section 4(f) Programmatic Evaluation for:
 - Minor Involvement with Historic Sites
 - Use of Historic Bridges
 - Minor Involvement with Publicly Owned Park, Recreation Area, Wildlife or Waterfowl Refuge
 - Independent Walkway and Bikeway Construction Projects
 - Net Benefits
 - De minimis* Evaluation of Impacts documentation (i.e., notice to SHPO, *de minimis* template)
- Final Individual Section 4(f)
- Resolution of Support from Municipality/County
- Other (specify): _____

Attachment A
Project Location Map



LEGEND:

 Project Area



0 2,000 4,000 Feet

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ROUTE 30/130 COLLINGSWOOD/PENNSAUKEN (PHASE B)
CAMDEN COUNTY, NEW JERSEY

PROJECT AREA LOCATION MAP

SCALE: AS INDICATED

DATE: December 2008



FIGURE 1

Source: U.S.G.S. Topographic Map, Camden, New Jersey 1994.

ProjectWise:\500038900\GIS\Mxd\Site Location Map.qxd

Attachment B

Natural Heritage Program and USFWS Correspondence



600 Parsippany Road Ste 301
Parsippany, NJ 07054-3715

973 739 9400
973 428 8509 fax
www.dewberry.com

December 12, 2008

The New Jersey Natural Heritage Program
Office of Natural Lands Management
Division of Parks and Forestry
Department of Environmental Protection
P.O. Box 404
Trenton, New Jersey 08625

**Re: *Natural Heritage Database / Landscape Project Search Request
Rt. 30/130 Collingswood/Pennsauken (Phase B)
Borough of Collingswood, Township of Pennsauken, and City of Camden, Camden
County, New Jersey***

Dear Natural Heritage Program Staff,

In connection with the proposed project known as "Rt. 30/130 Collingswood/Pennsauken (Phase B)", which entails roadway and bridge improvements to Routes 30/130 over Haddon Avenue and the Cooper River, we are requesting a search of the Natural Heritage Database / Landscape Project for records of threatened or endangered species, proposed threatened or endangered species and critical habitat on, or near, the site described below and depicted on the attached figure. Information in your office's response to this data request is to be used in the production of a Categorical Exclusion Document prepared pursuant to the National Environmental Policy Act for the New Jersey Department of Transportation.

The site is located along the Route 30/130 corridor in the Borough of Collingswood, Township of Pennsauken, and City of Camden, Camden County, New Jersey. A USGS site location map and Natural Heritage Data Request Form are enclosed for your reference.

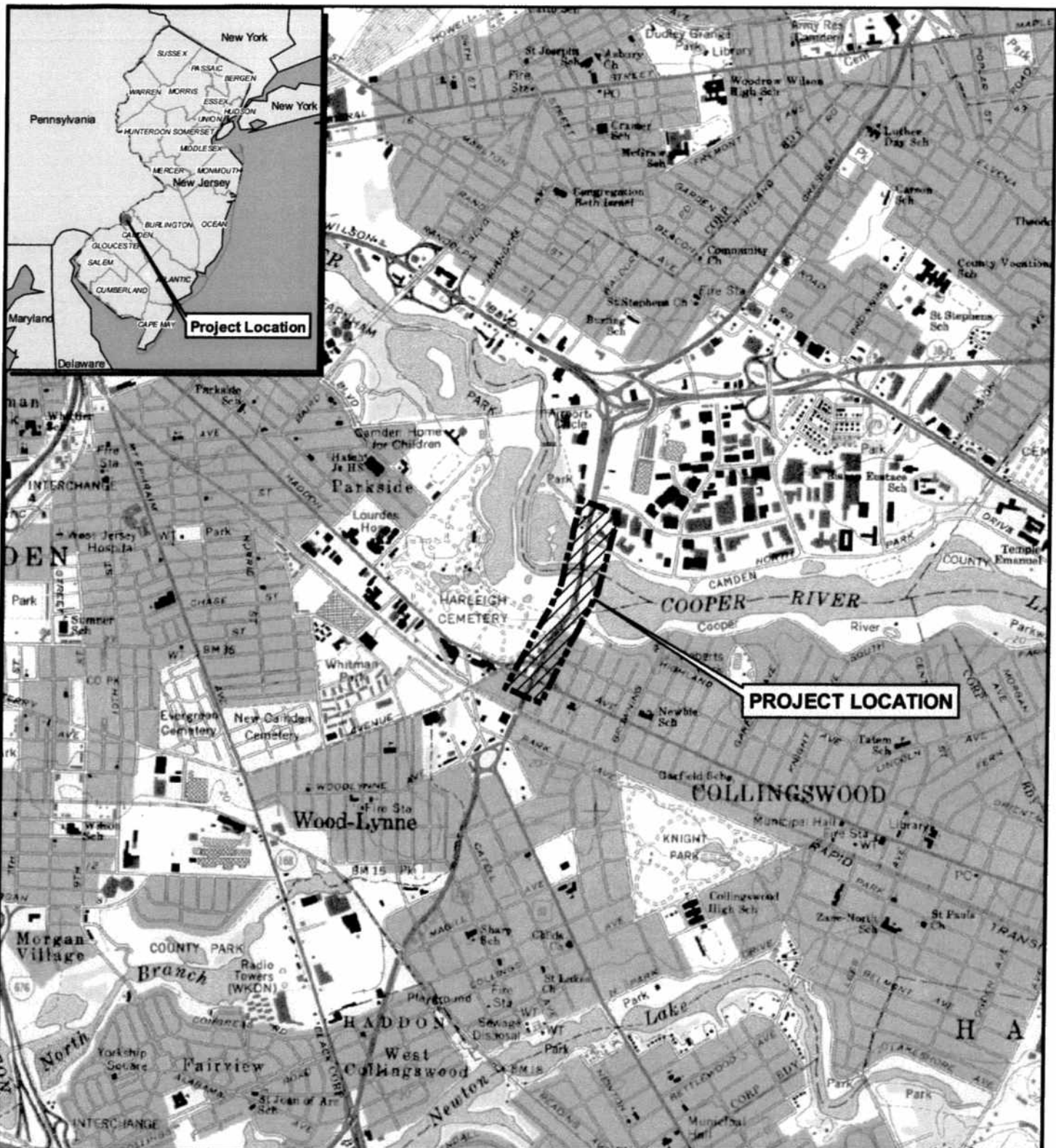
If you should have any questions regarding this project, please do not hesitate to contact me at (973) 739-9400 ext 3218.

Sincerely,
Dewberry-Goodkind, Inc.

A handwritten signature in black ink, appearing to read "Matt Schlitzer", is written over a horizontal line.

Matt Schlitzer
Wetlands Specialist

Enclosures



LEGEND:



Project Area



NEW JERSEY DEPARTMENT OF TRANSPORTATION

**ROUTE 30/130 COLLINGSWOOD/PENNSAUKEN (PHASE B)
CAMDEN COUNTY, NEW JERSEY**

PROJECT AREA LOCATION MAP

SCALE: AS INDICATED

DATE: December 2008



FIGURE 1

Source: U.S.G.S. Topographic Map, Camden, New Jersey 1994.

ProjectWise:\500038900\GIS\Mxd\Site Location Map.qxd



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN S. CORZINE
Governor

Division of Parks and Forestry
Office of Natural Lands Management
Natural Heritage Program
P.O. Box 404
Trenton, NJ 08625-0404
Tel. #609-984-1339
Fax. #609-984-1427

LISA P. JACKSON
Commissioner

May 30, 2006

Antonio F. Federici
Dewberry-Goodkind, Inc.
600 Parsippany Road, 3rd Floor
Parsippany, NJ 07054

Re: Route 30 & 130

Dear Mr. Federici:

Thank you for your data request regarding rare species information for the above referenced project site in Camden City, Collingswood Borough, and Pennsauken Township, Camden County.

Searches of the Natural Heritage Database and the Landscape Project (Version 2) are based on a representation of the boundaries of your project site in our Geographic Information System (GIS). We make every effort to accurately transfer your project bounds from the topographic map(s) submitted with the Request for Data into our Geographic Information System. We do not typically verify that your project bounds are accurate, or check them against other sources.

We have checked the Natural Heritage Database and the Landscape Project habitat mapping for occurrences of any rare wildlife species or wildlife habitat on the referenced site. Please see Table 1 for species list and conservation status.

Table 1 (on referenced site).

Common Name	Scientific Name	Federal Status	State Status	Grank	Srank
bald eagle foraging area	<i>Haliaeetus leucocephalus</i>	LT	E	G4	S1B,S2N
eastern box turtle	<i>Terrapene carolina</i>		Special Concern	G5	S5B

Neither the Natural Heritage Database nor the Landscape Project has records for any additional rare wildlife species or wildlife habitat within 1/4 mile of the referenced site.

We have also checked the Natural Heritage Database for occurrences of rare plant species or ecological communities. The Natural Heritage Database does not have any records for rare plants or ecological communities on or within 1/4 mile of the site.

Attached is a list of rare species and ecological communities that have been documented from Camden County. If suitable habitat is present at the project site, these species have potential to be present.

Status and rank codes used in the tables and lists are defined in the attached EXPLANATION OF CODES USED IN NATURAL HERITAGE REPORTS.

If you have questions concerning the wildlife records or wildlife species mentioned in this response, we recommend that you visit the interactive I-Map-NJ website at the following URL, <http://www.state.nj.us.dep/gis/depsplash.htm> or contact the Division of Fish and Wildlife, Endangered and Nongame Species Program.

PLEASE SEE THE ATTACHED 'CAUTIONS AND RESTRICTIONS ON NHP DATA'.

Thank you for consulting the Natural Heritage Program. The attached invoice details the payment due for processing this data request. Feel free to contact us again regarding any future data requests.

Sincerely,

Herbert A. Lord

Herbert A. Lord
Data Request Specialist

cc: Robert J. Cartica
Lawrence Niles
NHP File No. 06-3907581



United States Department of the Interior

FISH AND WILDLIFE SERVICE



In Reply Refer To:

ES-06/141

New Jersey Field Office
Ecological Services
927 North Main Street
Pleasantville, New Jersey 08232
Phone: (609) 646-9310 FAX: (609) 646-0352
<http://fws.gov/northeast/njfieldoffice>

JUN 20 2006

Antonio F. Federici, Environmental Scientist/Wetland Specialist
Dewberry-Goodkind, Inc.
600 Parsippany Road, 3rd Floor
Parsippany, New Jersey 07054-3715

Dear Mr. Federici:

This responds to your April 3, 2006 letter to the U.S. Fish and Wildlife Service (Service) requesting information on the presence of federally listed threatened and endangered species within the vicinity of Route 30 and Route 130, located in Collingswood Borough, Camden City, and Pennsauken Township, Camden County, New Jersey.

AUTHORITY

This response is provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of federally listed endangered and threatened species. These comments do not address all Service concerns for fish and wildlife resources and do not preclude separate review and comments by the Service pursuant to the December 22, 1993 Memorandum of Agreement among the U.S. Environmental Protection Agency, New Jersey Department of Environmental Protection (NJDEP), and the Service, if project implementation requires a permit from the NJDEP pursuant to the New Jersey Freshwater Wetlands Protection Act (N.J.S.A. 13:9B *et seq.*); nor do they preclude comments on any forthcoming environmental documents pursuant to the National Environmental Policy Act of 1969 as amended (83 Stat. 852; 42 U.S.C. 4321 *et seq.*).

FEDERALLY LISTED SPECIES

Pursuant to Section 6 of the ESA, the Service has delegated management responsibility for nesting and foraging bald eagles to the NJDEP, Endangered and Nongame Species Program (ENSP). No active eagle nests are known within the immediate vicinity of the proposed project site; thus, the project is not likely to adversely affect nesting bald eagles. However, on-site and surrounding areas have been identified as foraging habitat for the bald eagle by the ENSP. The ENSP maintains up-to-date information on bald eagle foraging areas. Therefore, the Service recommends that the ENSP be contacted at the address below regarding any recommended restrictions to protect foraging bald eagles. The Service will defer to the ENSP regarding

restrictions to protect wintering, migrant, and other eagle foraging habitat not associated with a nest site. Should the ENSP determine that foraging eagles will be killed, injured, or harassed by proposed project activities, further coordination with the Service will be required. Please contact the ENSP at:

Dr. Larry Niles
Endangered and Nongame Species Program
Division of Fish and Wildlife
P.O. Box 400
Trenton, New Jersey 08625
(609) 292-9400

ADDITIONAL SERVICE COMMENTS

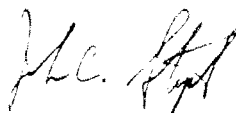
The Service's *Partners for Fish and Wildlife Program* has recently completed a habitat restoration project along the northern and southern banks of the Cooper River immediately adjacent to the proposed project area. Restoration activities included the planting of native trees and shrubs and actions to control Japanese knotweed (*Polygonum cuspidatum*), an invasive plant species. To maintain the restoration conditions of the banks along the Cooper River, the Service requests planting trees and shrubs within any disturbed areas once project activities are completed. In addition, the Service requests the use of native vegetation to prevent the re-invasion of Japanese knotweed in the project area.

CONCLUSION

Except for the above-mentioned species and an occasional transient bald eagle (*Haliaeetus leucocephalus*), no other federally listed or proposed endangered or threatened flora or fauna under Service jurisdiction are known to occur on the project site. If additional information on federally listed species becomes available, or if project plans change, this determination may be reconsidered.

Please refer to this office's web site at <http://www.fws.gov/northeast/njfieldoffice/Endangered/eslist.htm> for a current list of federally listed species or candidate species in New Jersey. Candidate species are species under consideration by the Service for federal listing. Although candidate species receive no substantive or procedural protection under the ESA, the Service encourages you to consider candidate species in project planning. Please contact Lisa Arroyo of my staff at (609) 646-9310, extension 49, if you have any questions or require further assistance regarding federally listed threatened or endangered species.

Sincerely,



John C. Staples
Assistant Supervisor

Attachment C

NJHPO Eligibility and Effects Concurrence

**State of New Jersey****DEPARTMENT OF ENVIRONMENTAL PROTECTION**

Natural and Historic Resources, Historic Preservation Office

PO Box 404, Trenton, NJ 08625

TEL: (609) 292-2023 FAX: (609) 984-0578

www.state.nj.us/dep/hpo

JON S. CORZINE
GovernorLISA P. JACKSON
Commissioner

July 18, 2008

Amber Cheney, Principal Environmental Specialist
New Jersey Department of Transportation
Bureau of Landscape Architecture and Environmental Solutions
1035 Parkway Avenue
P.O. Box 600
Trenton, NJ 08625-0600

Dear Ms. Cheney:

As Deputy State Historic Preservation Officer for New Jersey, in accordance with 36 CFR Part 800: Protection of Historic Properties, as published in the Federal Register on December 12, 2000 (65 FR 77725-77739) and amended on 6 July 2004 (69 FR 40553-40555), I am providing continuing consultation comments on the following proposed undertaking:

*Route 30/130 Mainline Roadway Improvement, Phase B (Collingswood Circle Replacement Project)
Borough of Collingswood, City of Camden, and Township of Pennsauken,
Camden County, New Jersey*

This letter is in response to your request for Historic Preservation Office (HPO) review and comment on the following report:

Cultural Resources Survey Report – Route 30/130 Mainline Roadway Improvement, Phase B, Borough of Collingswood, City of Camden, Township of Pennsauken, Camden County, New Jersey (Volumes I & II) prepared for New Jersey Department of Transportation, prepared by A.D. Marble & Company, Mount Laurel, NJ (September 2007)

Summary: The HPO requests that additional archaeological survey be conducted within the portion of the APE north of the Cooper River in the vicinity of the Crescent Boulevard (Route 30/130) and North Park Drive intersection. Three (3)

previously identified historic architectural resources are located within the APE, the Camden and Atlantic Railroad Historic District, Harleigh Cemetery, and the Cooper River Park Historic District. The proposed project will have no effect on the Camden and Atlantic Railroad Historic District, no adverse effect on Harleigh Cemetery, and an adverse effect on the Cooper River Park Historic District. Further consultation is required in order to develop mitigation measures appropriate to the nature and magnitude of the adverse effect.

800.4 Identification of Historic Resources

Archaeology

The HPO has reviewed the submitted cultural resources report and does not agree with the report findings. While the HPO *concur*s that the southern alignment of Crescent Boulevard (Route 30/130 south of the Cooper River) contains no significant archaeological deposits, the HPO does not concur that the North Park Drive alignment contains only a low potential for historic properties (Page 85). The submitted report contained no evidence of subsurface investigations to support this conclusion. A review of the northern side of the Cooper River within the proposed APE suggests a stable landform (Figure 11; cultivated fields) while Hills' 1808 map shows a landing in this general area. This suggests the margins of North Park Drive have a moderate to high potential for archaeological properties.

Architecture

The HPO concurs with the consultant's conclusion that three (3) previously identified New Jersey and National Register eligible architectural resources are located within the project's Area of Potential Effects (APE):

The **Camden and Atlantic Railroad Historic District** was recommended eligible for listing in the New Jersey and National Registers of Historic Places in a SHPO Opinion dated September 17, 2001 (HPO-I2001-115). The PATCO Hi-Speed Line over Route 30/130 Bridge, which marks the southern limit of the APE, is not individually eligible for listing in the registers, but is a contributing resource to the Camden and Atlantic Railroad Historic District.

Harleigh Cemetery was recommended eligible for listing in the New Jersey and National Registers of Historic Places in a SHPO Opinion dated June 15, 1995 (HPO-F95-67). According to the SHPO Opinion, Harleigh Cemetery is eligible under National Register Criterion C because it combines the characteristics of the picturesque landscape movement championed by architects such as Frederick Law Olmstead with the period philosophy that cemeteries should be parks for the living. The cemetery is significant for its incorporation of design art, architecture, and landscape architecture.

The **Cooper River Park Historic District** was recommended eligible for listing in the New Jersey and National Registers of Historic Places in a SHPO Opinion dated

February 28, 1994 (HPO-B94-75) with an additional Opinion, which updated the resource's boundary, dated February 16, 2000 (HPO-B2000-76). Cooper River Park is eligible for listing in the New Jersey and National Registers of Historic Places under Criterion A for its association with broad patterns of history in the categories of community planning and development and entertainment and recreation, as an example of an early 20th century public park. Under Criterion C, Cooper River Park is eligible in the category of landscape architecture as embodying the distinctive characteristics of a type. The park is focused around a waterway (the Cooper River), following design concepts promulgated by the Olmsted Brothers at the turn of the century and includes amenities such as scenic overlooks, docks, footbridges, footpaths and staircases; and as embodying the work of a master, Charles W. Leavitt and Son, one of the most prominent early 20th century landscape architectural firms, which during the 1920's had many important commissions in New Jersey and across the nation. The Crescent Boulevard (Route 30/130) Bridge over the Cooper River (Structure# 0405153) is a contributing structure within the Cooper River Park Historic District. The 1926 bridge is an integral feature of the park's circulation plan and is one of two bridges which were built within the general period of the park's conception and realization.

800.5 Assessment of Adverse Effects

Archaeology

Due to time constraints, the HPO does not request a revised Phase IB archaeological report but requires the archaeological consultant to conduct a program of archaeological monitoring for the identification, evaluation, and treatment of archaeological properties within the North Park Drive alignment's area of potential effects (APE). The archaeological consultant shall submit an archaeological monitoring program (similar to the example attached) for approval by FHWA, NJDOT, and the HPO. A draft archaeological technical report documenting monitoring results shall be submitted to NJDOT and HPO for review within six months of completing the monitoring program.

Architecture

The HPO concurs that as proposed, the Route 30/130 Mainline Roadway Improvement - Phase B project will have **no effect upon the Camden and Atlantic Railroad Historic District or the contributing PATCO Hi-Speed Line over Route 30/130 Bridge**. The character defining features of the historic district will not be altered by the proposed project as all of the proposed work will occur outside of the National Register boundary of the resource.

The HPO concurs that as proposed, the Route 30/130 Mainline Roadway Improvement - Phase B project will have **no adverse effect upon Harleigh Cemetery**. The proposed project will result in the acquisition of .09 acres from the eastern boundary of Harleigh Cemetery's 150-acre National Register Boundary and require the removal of some trees along the edge of US Route 30/130 (Crescent Boulevard). According to the following cultural resource survey report on file at the HPO:

*Cultural Resources Assessment, Collingswood Circle Elimination Project
Collingswood Borough and City of Camden, Camden County, New Jersey
Prepared for New Jersey Department of Transportation, Bureau of
Environmental Services, Trenton, New Jersey, Prepared by A.G. Lichtenstein and
Associates, Inc. Fair Lawn, New Jersey(February 1995)*

There is a marked difference in the character and appearance of the original western portion of Harleigh Cemetery, established in 1885, and the newer eastern portion (which is the section that borders Crescent Boulevard and from which the minor acquisition will be made). The eastern parcel was obtained by Harleigh Cemetery in 1912 in anticipation of the physical expansion of the cemetery. When Crescent Boulevard (US 30/130) was built in the mid-1920's, it cut through the eastern edge of the cemetery, and the land on the east side of the new highway was eventually sold by the cemetery association, thereby making Crescent Boulevard the eastern boundary of the cemetery property. The physical border of the cemetery along Crescent Boulevard is defined by a row of scrub growth and a chain-link fence. The eastern portion of the cemetery is dominated by post-1920 funerary monuments, most of which are low, slab-markers laid out in regular rows. While the use of curving drives was used throughout the extension, the other qualities that distinguish Harleigh Cemetery such as varied landscaping, dominant landscaped features, and artistic funerary monuments and architecture were not repeated in this newer section. Although it appears from plans preserved at the Harleigh Cemetery Association, that the eastern section was intended for treatment, the plans were apparently never implemented. It should be noted that while the above referenced report states that the Period of Significance for Harleigh Cemetery is "1885 until 50 years ago (1945)", the HPO feels that a more appropriate Period of Significance would be 1885 to 1920's.

The minor right-of-way acquisition from the eastern portion of Harleigh Cemetery, which does not appear to contribute to the historical significance of the resource will not alter the setting and feeling of the cemetery or diminish its historical integrity. The roadway improvements will also be screened from view of the contributing elements (tree-lined drives, gravestones, and monuments) by a western tree line located between the historic features of the cemetery and the area of proposed improvements.

The HPO concurs that as proposed, the Route 30/130 Mainline Roadway Improvement - Phase B project will have an **adverse effect upon the Cooper River Park Historic District**. The adverse effect is the result of several elements of the proposed project. The project will result in the demolition and replacement of the existing Route 30/130 (Crescent Boulevard) Bridge over Cooper River, a resource that contributes to the historic significance, integrity, and character of the district. The project will also result in the removal of a contributing stone staircase at the bridge's northeast quadrant and, alterations to the intersections of Crescent Boulevard with South Park Drive and North Park Drive, and the acquisition of approximately .25 acres of right-of-way acquisition from the within the National Register boundary of the district.

800.6 Resolution of Adverse Effects

The HPO looks forward to continuing consultation among all consulting and interested parties, in accordance with 800.6, in order to avoid, minimize, and/or mitigate the adverse effects upon the Cooper River Park Historic District.

Should you need any additional information or if you have any questions regarding these comments, please contact Jonathan Kinney of my staff at (609) 984-0141 with questions regarding historic architecture, historic districts, and historic landscapes, or Vincent Maresca of my staff at (609) 633-2395 with questions regarding archaeology.

Sincerely,



Terry Karschner
Acting Administrator &
Deputy State Historic
Preservation Officer

cc:

Federal Highway Administration
Attn: Jeannette Mar
840 Bear Tavern Road, Suite 310
West Trenton, NJ 08628

A.D. Marble & Company
18000 Horizon Way
Suite 200
Mount Laurel, NJ 08054

Pennsauken Township
Attn: Municipal Clerk
5605 North Crescent Boulevard
Pennsauken, NJ 08110

Collingswood Borough
Attn: Borough Clerk
678 Haddon Avenue
Collingswood, NJ 08108

Luis Pastoriza, M.S.M., R.M.C.
Municipal Clerk & Registrar
Office of the City Clerk
520 Market Street
City Hall, Room 105
P.O. BOX 95120
Camden, New Jersey 08101-5120

Camden County
Attn: County Clerk
Camden County Courthouse, Room 102
520 Market Street
Camden, New Jersey 08102

Camden County Historical Society
P.O. Box 378
Collingswood, NJ 08108-0378

Camden County Cultural & Heritage
Commission
250 Park Avenue
Haddon Township, NJ 08108

REVISED July 2, 1998

NEW JERSEY ROUTE 29 SECTIONS 10c & 11b

PROCEDURES FOR ARCHAEOLOGICAL MONITORING DURING
CONSTRUCTION

Purpose

Archaeological monitoring of the Route 29 construction is intended to fulfill the requirements of the *Memorandum of Agreement* between the FHWA, NJDOT and the New Jersey State Historic Preservation Office, and of Section 108.13: Archaeological Findings of the *Special Provisions Route 29 Section 10C and 11B*. Monitoring by archaeologists will enable archaeological properties which may be eligible for the National Register of Historic Places to be identified and appropriately treated within the framework of the construction schedule.

This document sets out procedures to ensure that the archaeological monitoring is carried out in the most efficient manner during construction activities, and expands and clarifies the information in the *Special Provisions* 108.13.

Definitions

“**Observational Monitoring**” means the rapid recordation of archaeological discoveries made during contractor’s operations through visual observation, photography and written notes, the inspection of backdirt piles, and the mapping of discoveries in plan and profile. Short-term cessation of work (as defined below) may be required in order to complete some recordation actions.

“**Documentary Monitoring**” means the detailed archaeological investigation of discoveries while contractor’s operations are suspended at a particular location for an agreed period. The *Special Provisions* state anticipated stoppages of up to two days at any particular location. Additional stoppages beyond two days may occur when determined necessary by NJDOT’s Project Manager in consultation with archaeological authorities in accordance with the terms outlined in the *Special Provisions*

“**Short-term cessation of work**”: a period of not more than two hours during observational monitoring

“**Site**” means one of the resources listed on pages 106 through 108 of Section 108.13: Archaeological Findings of the *Special Provisions Route 29 Section 10C and 11B*.

“**Location**” means a distinct area within a Site

*Copy to Lou Perry Aug
7-8-98*

REVISED July 2, 1998

"Contractor" means PKF/NCI or any of their subcontractors who may be undertaking work requiring archaeological monitoring

"Archaeological Monitors" means OSHA/HAZWOPER certified archaeologists employed by Hunter Research Inc. or Gannett-Fleming Inc.

Contractor Responsibilities

The contractor will:

1. Ensure that the Archaeological Monitors have access to worksites and are provided with assistance in removal of soils and mechanical exposure of archaeological remains as specified in paragraph 108.13 of the Special Provisions.
2. Coordinate with the NJDOT Resident Engineer to ensure that the Archaeological Monitors are aware of the project schedule and have adequate notice of operations requiring monitoring
3. Communicate the requirements and procedures for monitoring to subcontractors.

NJDOT Resident Engineer Responsibilities

The Resident Engineer or designate [** to be specified] will:

1. Be familiar with the requirements of the archaeological monitoring program
2. Act as a prime point of contact between the Contractor, the NJDOT Project Manager and the Archaeological Monitors.
3. Ensure that the Archaeological Monitors are informed of the Contractor's Schedule.
4. Convene meetings as necessary, in consultation with the NJDOT Project Manager, to determine courses of action when potentially significant discoveries are made.

Archaeological Monitor Responsibilities

The Archaeological Monitors will:

1. Maintain regular contact with the Resident Engineer.
2. Conform to Contractors' procedures and schedules on worksites.
3. Seek to work with the NJDOT and the Contractor to perform the required archaeological monitoring so as to limit, as far as possible, disruption to the overall construction schedule.
4. Provide adequate staff to complete appropriate recording for short-term cessation of work and for Documentary Monitoring procedures.
5. Comply with PKF/NCI JV Safety Program.
6. Work within PKF/NCI JV hourly work schedule.

POINTS OF CONTACT

Archaeological Monitors:

REVISED July 2, 1998

Hunter Research Inc.

alternates: Ian Burrow:
Bill Liebeknecht

Richard Hunter

Gannett-Fleming Inc.

alternate: John Martin:
Neil Ross:

NJDOT

Project Manager: Kathy Diringer:

Environmental: Elkins Green:

Archaeologist: Dave Zmoda:

Resident Engineer: Ted A. Stine:

** Alternates

CONTRACTOR

PKF/NCI

Glenn Schwartz:

Carmen Cipriano

Donald Brecht

AREAS AND ACTIONS REQUIRING MONITORING

Areas

Areas where monitoring is required have been marked on a set of project plans which will form the basis of the monitoring program. These areas are those in which either or both Observational and Documentary Monitoring will be required. These monitoring areas comprise the sites which are specified in Section 108.13 of the *Special Provisions*, but it should be understood that the precise location and extent of a number of these resources is unclear, consequently it should be anticipated that observational monitoring will be conducted as needed along the majority of the alignment. In general, Documentary Monitoring will take place in specific selected locations within the defined limits of monitoring. The extensive Maddock and Trenton China Dump sites (1 and 3 on maps), for example, will be sampled at a small number of locations.

REVISED July 2, 1998

Construction Activities which will require monitoring comprise:

- excavation: trenching for utilities and drainage, and any other bulk removal of material by machinery
- the removal of soils from existing grade

PROCEDURES:

1. Flow of Information.

The NJDOT Resident Engineer, in consultation with the NJDOT Project Manager, will facilitate a regular exchange of information on Contractor's work schedule and the requirements for archaeological monitoring. This will be accomplished through weekly meetings between the Contractor, the Archaeological Monitors, and the Resident Engineer, through daily updates of progress, and through the provision of three-week schedule information from PKF/NCI.

At these meetings, detailed arrangements will be made to ensure that Archaeological Monitors will be on site when excavation or soil removal is in progress on sensitive areas. Appropriate advanced notice periods will be developed.

2. General considerations

Safety: Archaeological monitoring will conform to PKF/NCI Site Safety and Health Procedures defined for the worksite. Archaeological Monitors will, where possible, report to the responsible PKF/NCI Site Safety and Health Officer prior to monitoring operations. All monitors will have current HAZWOPER certification.

Hazardous materials: Certain locations may contain elevated levels of contaminants. Air monitoring of excavations in these areas will be carried out by PKF/NCI personnel as specified in their Safety and Health Plan. Areas known to contain potential hazards will be shown on the maps consulted during weekly meetings. Gannett-Fleming health monitoring personnel will conduct air monitoring as needed for Observational and Documentary Monitoring operations by Hunter Research and Gannett Fleming personnel. Copies of all monitoring reports are to be transmitted daily to PKF/NCI JV.

Training and Briefing: At times to be agreed, the Archaeological Monitors will brief the operators performing the excavation to explain the purpose of the monitoring and the methods to be employed.

Night Working: Night work will be performed on this project. PKF/NCI JV will supply light

REVISED July 2, 1998

plants during night operations. Time constraints on night working are such that a decision to undertake Documentary Monitoring will imply a cessation of contractor's work at that location for the remainder of the night working period. Home phone numbers of the Project Manager or designate and Hunter Research and Gannett Fleming Archaeological Monitors will be available on the worksite. The nature of the work and the anticipated archaeological data indicate that the emphasis in these areas will be on Non Intrusive Observation (as defined on page 5).

Human Remains: if suspected human remains are located during contractor's operations all work must cease in the area immediately and the Resident Engineer contacted. The Resident Engineer will then contact the following:

- The Project Manager
- The Archaeological Monitor (if not on site at the time of discovery)
- The Detective on Duty, Mercer County Prosecutor's Office 609-989-6305

Any remains considered to be the result of homicide or other suspicious circumstances will fall under the jurisdiction of the County Prosecutor's Office.

If the remains are judged to be Native American, Consultation will be initiated with the New Jersey Commission on Indian Affairs, Department of State: Chief Roy Crazy Horse (Chair) 609-261-4747; alternate Peggy Schell (Liaison to the Commission) 609-777-0883, by the Project Manager. The consultation will establish procedures for appropriate treatment of the remains. The consultative process will also include the Federal Highway Authority [** name and phone].

If the remains are judged to be historic (i.e. not Native American but not subject to Coroner's or police investigations on account of their age), they will be treated in accordance with the current guidelines for the treatment of human remains of the New Jersey Historic Preservation Office (draft, 1984). This envisages consultation and a disposition agreement between the New Jersey State Museum, the State Historic Preservation Office, and NJDOT, and other entities that these three bodies consider appropriate.

3. Observational Monitoring

Observational monitoring will entail one or more of the following:

A. Non-intrusive observations

Archaeological Monitors will observe Contractor's excavations and grading operations within the limits marked on the project plans, inspecting backdirt piles and exposed trench profiles, and taking notes and photographic records, and collecting artifact and soil samples. The main requirement for the Observational Monitoring work is for inspection of soil profiles in the

sides of excavations.

Excavation trench areas may be entered for rapid inspection of exposed soils, features or artifacts without interference with Contractor's work (e.g. during work breaks).

B. Short-duration work stoppages

On the basis of observations, the Archaeological Monitor may request the Project Manager or Designate for a short-term cessation of work at a particular location in order to record information in more detail, or to more thoroughly evaluate exposed material. The Archaeological Monitor may direct the Contractor's foreman in the use of machinery on a limited basis to assist in the exposure of particular material of archaeological importance, as detailed in the *Special Provisions* 108.13. This assistance will comprise work which would otherwise be done without archeological involvement, but where archaeological direction can ensure that significant material is not disturbed.

"Short-term cessation of work" is defined as a period of not more than two hours. Stoppages in excess of two hours will fall under Documentary Monitoring, and require authorization as set out below.

Day-to-day decision making during Observational Monitoring will be made by the Resident Engineer, the Contractor and the Archaeological Monitors, with the final decision resting with the NJDOT Project Manager or Designate if there is a difference of opinion between the parties. More extended consultation will be undertaken for Documentary Monitoring episodes (see below).

4. Documentary Monitoring

A. Decision-making process

If the senior Archaeological Monitor on site judges that there are archaeological resources at the work location, and that these cannot be adequately evaluated and recorded through Observational Monitoring (up to and including a two-hour cessation of work), he/she will inform the Contractor and the Resident Engineer immediately, and in any case within the two hour cessation period if implemented. The Resident Engineer or other specified NJDOT point-of-contact will contact the Project Manager and convene a site meeting or conference phone call to determine whether Documentary monitoring is appropriate, the final decision resting with the NJDOT Project Manager after consultation with the NJDOT archaeologist assigned to the project. The New Jersey State Historic Preservation Office will be informed of the decision by the Project Manager or Designate.

REVISED July 2, 1998

B. Procedures

For the duration of the Documentary Monitoring the defined portion of the site will be under the control of the Archaeological Monitor, who will be free to operate, within the terms of the agreement, at that location. The Archaeological Monitor will conform to the Health and Safety Plan provisions which apply at the project site, and will consult with the Contractor's Site Safety and Health Officer before starting work.

The Archaeological Monitor will inform the Contractor and Resident Engineer as soon as Documentary Monitoring is complete.

5. Procedures for Unanticipated Discovery by the Contractor

When excavating operations encounter "prehistoric or structural remains, or artifacts of historical or archaeological significance" (*Special Provisions Route 29 Section 10C and 11C: 108.13*) and the Archaeological Monitor is not present, operations will be temporarily discontinued for a period of not more than two hours under the provisions of the "Short Term Cessation of Work". The Resident Engineer will be contacted immediately and a determination will be made by the Project Manager, in consultation with the NJDOT Archaeologist and the Archaeological Monitor before making a decision as to the need for Observational or Documentary Monitoring.

6. Guidelines for assessing whether "historically or archaeologically significant" items have been encountered

The following items may be encountered and should be regarded as potentially significant:

- pipes, drains or sewers of brick, stone or wood (historic drainage systems, e.g. Lamberton Interceptor)
- foundations or structures of brick, stone or wood (early houses, industrial structures, wharves etc)
- concentrations of artifacts (ceramics, glass, building material, bone). Particular attention should be paid to bone concentrations in case they represent human remains.
- concentrations of charcoal or building materials (occupation or historic fill episode)
- strikingly unusual colors or textures of soil (occupation sites or industrial activity)

All archaeological materials and artifacts remain the property of the State.

Attachment D

Memorandum of Agreement

MEMORANDUM OF AGREEMENT
BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION AND
NEW JERSEY STATE HISTORIC PRESERVATION OFFICER
REGARDING ROUTE 30/130 COLLINGSWOOD/PENNSAUKEN (PHASE B),
BOROUGH OF COLLINGSWOOD, TOWNSHIP OF PENNSAUKEN, CITY OF CAMDEN;
CAMDEN COUNTY, NEW JERSEY

WHEREAS, the New Jersey Department of Transportation (NJDOT) divided the Collingswood Circle Elimination Project into two phases (A and B) and is currently completing construction of Phase A, which includes removal of the Circle and reconfiguration of Route 30/130; the NJDOT proposes to construct Phase B of the Collingswood Circle Elimination Project, which involves the widening of Route 30/130 from two (2) to three (3) lanes from Haddon Avenue north to the Cooper River Bridge, rehabilitating the Haddon Avenue Bridge over Route 30/130 (Structure No. 0405-152), and replacing the Rt. 30/130 Bridge over the Cooper River (Structure No. 0405-153) in the Borough of Collingswood, Township of Pennsauken and City of Camden, Camden County.

WHEREAS, the FHWA, the New Jersey State Historic Preservation Officer (NJSHPO), the Advisory Council on Historic Preservation (Advisory Council), and the NJDOT executed a Programmatic Agreement in November of 1996 which stipulates how FHWA's Section 106 responsibilities for NJDOT-administered federal aid projects will be satisfied; and

WHEREAS, in accordance with that agreement, the NJDOT has consulted with the NJSHPO in order to determine the Area of Potential Effect (APE), to identify significant National Register eligible and listed properties, and to assess the effects of the project on both eligible and listed properties within the APE pursuant to the requirements of 36 CFR Part 800, the regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470f)¹; and

WHEREAS, the consultation has resulted in a determination that the following five (5) properties are eligible for or are listed in the National Register of Historic Places; and

- Camden and Atlantic Railroad Historic District (SHPO Opinion: 9/17/01)
- The Harleigh Cemetery (SHPO Opinion: 6/15/95)
- Cooper River Park Historic District (SHPO Opinion: 2/28/94)
- Collingswood Circle (White Horse Pike Rond Point) (SHPO Opinion: 6/15/95)
- Collingswood Circle Pure Oil Service Station (Wayne's Used Cars) (SHPO Opinion: 6/15/95); and

WHEREAS, the FHWA has determined that the construction of this project as proposed will have a No Effect on the Camden and Atlantic Railroad Historic District, a No Adverse Effect on the Harleigh Cemetery, an Adverse Effect on the Cooper River Park Historic District, an Adverse Effect on the Collingswood Circle (White Horse Pike Rond Point) and an Adverse Effect on the Collingswood Circle Pure Oil Service Station (Wayne's Used Cars); and

¹ Copies of the cultural resources report for the project are on file at the New Jersey Historic Preservation Office and at the NJDOT cultural resources library, Trenton, New Jersey.

WHEREAS, the following Stipulations for Phase A of the subject project, the Rt. 30/130 Collingswood Circle Elimination Project, were carried out as required per the 9/26/96 Memorandum of Agreement, which did not contain a sunset clause:

- The NJDOT documented the Collingswood Circle Pure Oil Service Station (Wayne's Used Cars), Collingswood Circle (White Horse Pike Rond Point), and Crescent Boulevard Bridge (Structure No. 0405-153) to Level II of the Historic American Engineering Record (HAER) standards. The documentation was sent to the Chesapeake/Allegheny System Support Office of the National Park Service in September 1997 and was accepted as complete on February 27, 1998. Copies were also sent to the NJSHPO and the NJ State Library Archives in September 1997.
- A marketing plan was developed in consultation with the NJSHPO for the Collingswood Circle Pure Oil Service Station (Wayne's Used Cars) in 1997; the Station was successfully marketed to private individuals for use in Watertown, NY.

WHEREAS, the archeological survey for the Old Black Horse Pike Drive-Inn that was to be conducted as part of Phase A was instead conducted as part of a completely separate project and no significant archeological resources were encountered; and

WHEREAS, the Route 30/130 Bridge over the Cooper River was originally to be reconstructed during Phase A, but now requires *complete replacement*, which will occur as part of Phase B. Removing the bridge, a contributing resource to the Cooper River Park Historic District (HD), results in an Adverse Effect to the HD; design feature to complement the HD will be implemented.

WHEREAS, the project/new bridge will be designed to include compatible historic elements such as the construction of the bridge on the historic footprint; use of an aesthetic parapet (e.g., Texas type railing), tinted and form-lined parapets and other design features to complement the above ground features of the Cooper River Park Historic District, where appropriate; and

WHEREAS, the NJDOT and FHWA have considered alternatives to avoid or minimize the adverse effects and found that they are not feasible; and

WHEREAS, the FHWA has consulted with the NJDOT, NJSHPO, Borough of Collingswood, Township of Pennsauken, City of Camden, Camden County, and Camden County Department of Parks to develop a plan to mitigate the adverse effects; and

WHEREAS, the NJDOT has solicited comments from the Camden County Department of Parks, Harleigh Cemetery & Crematory, Clerk/Borough of Collingswood, Clerk/Township of Pennsauken, Camden County Engineer, Historic Review Committee, Camden County Historical Society, Pennsauken Historical Society, Camden County Cultural & Heritage Commission, Archaeological Society of New Jersey, Newton Colony Historical Society, Camden County Improvement Authority, Friends of the Collings-Knight House, Camden City Business Administrator, PATCO Hi-Speed Line, and the Collingswood Library and received comments from the Camden County Department of Parks, which stated they preferred a single-span bridge design so recreational boats could easily travel under the bridge and that they do not want any stormwater basins located on their property; and

WHEREAS, the bridge was offered under the Surface Transportation and Uniform Relocation Assistance Act to sixteen (16) consulting and interested parties on March 10, 2008; was declined by three (3) parties; thirteen (13) never responded; while one, the Harleigh Cemetery, expressed interest in taking ownership in a letter dated 4/7/08, but later did not respond after additional information regarding the STURAA and the bridge's condition was provided in a 4/17/08 package; and

WHEREAS, an Alternatives Analysis was prepared and was accepted by the FHWA on August 11, 2008; and

WHEREAS, the NJDOT has participated in the consultation and has been invited to concur in the MOA; and

WHEREAS, the Advisory Council was notified of the adverse effect finding to the Cooper River Park Historic District during Phase A on April 1, 1997 and no response was received; a decline in participation was assumed; and

NOW, THEREFORE, the FHWA and the NJSHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

STIPULATIONS:

The FHWA will ensure that the following measures are carried out:

1. Aesthetics: The new bridge will be designed to include an aesthetic parapet that will emulate the look of the existing (e.g., Texas type railing), tinted concrete for the bridge abutments and wingwalls, and other design features to complement the above-ground features of the Cooper River Park Historic District, where appropriate; lighting installed over the Route 30/130 Bridge over the Cooper River will consist of powder-coated black tear-drop lights, as used in Phase A of the referenced project.
2. Pennsylvania Mica Staircases: The two (non-contributing) Pennsylvania mica staircases located south of South Park Drive and at the bridge's southeast quadrant, which will be removed, will be carefully disassembled; salvaged materials will be reused in the repair/reconstruction of the debilitated (contributing) Pennsylvania mica staircase located at the northeast quadrant of the bridge crossing.
3. Signage: An interpretative sign concerning the history of the Cooper River Park Historic District will be developed in consultation with the SHPO, and placed at the Northeast Quadrant of the bridge crossing on NJDOT right-of-way, at an appropriate location at the top of the staircase.
4. National Register Nomination: A draft final National Register nomination will be prepared for the Cooper River Park Historic District (HD), a resource which is eligible for listing on the National Register (SHPO Opinion: 2/28/94). The HD was determined to be eligible under Criterion A in the areas of community planning and development and entertainment and recreation as an example of an early-twentieth-century park. Under Criterion C, the HD is eligible for its landscape architecture that embodies the design concepts heralded by the Olmstead Brothers at the turn of the century and for its embodiment of the work of a master,

Charles W. Leavitt and Son, one of the most prominent early-twentieth-century landscape architecture firms in the United States. The HD qualifies for listing in the Register because it incorporates scenic overlooks, docks, footbridges, footpaths, and staircases into its design. Important aspects of integrity include setting, design, location, and materials.

5. Archeological Monitoring Program: An archeological monitoring program has been developed and is attached for reference (see Attachment A); the program was approved by SHPO on 9/17/08.

ADMINISTRATIVE CONDITIONS:

1. Professional Qualifications: The NJDOT, on behalf of FHWA, will ensure that all work is carried out by/under the direct supervision of a person or persons meeting at a minimum the *Secretary of the Interior's Professional Qualifications Standards*[48 CFR 44738-44739].
2. Dispute Resolutions: At any time during the implementation of the measures stipulated in this MOA, should an objection to any such measure or its manner of implementation be raised, FHWA will notify all signatories to the agreement, take the objection into account, and consult as needed to resolve the objection. Disputes regarding the completion of the terms of this agreement as necessary shall be resolved by the signatories. If the signatories cannot agree regarding a dispute, the FHWA shall then initiate appropriate actions in accordance with the provisions of 36 CFR 800.6(b) and 800.7 as appropriate. Modification, amendment, or termination of this agreement as necessary shall be accomplished by the signatories in the same manner as the original agreement.
3. Design Changes: If there are any major design changes to the Rt. 30/130 Collingswood/Pennsauken (Phase B) project, the FHWA shall consult with the New Jersey SHPO in accordance with the provisions of 36 CFR Part 800.
4. Project Completion:

Stipulations 1-3: Design work required by Stipulations 1, 2, and 3 will be completed prior to seeking federal authorization to advertise the project; all construction items which result from the work in Stipulations 1, 2, and 3 will be completed prior to final acceptance from the contractor.

Stipulation 4: Work required by Stipulation 4 will be completed as follows: Within a six-month period, a draft document will be submitted to the Historic Preservation Office's Registration staff for review and comment; a draft final will be supplied which incorporates all comments from the initial review; and an electronic copy of that document will be furnished to the Registration staff for their use in advancing the nomination through the State Review Board. The HPO will be responsible for the notification to property owners and county and local officials who are given an opportunity to comment, for scheduling of and holding of a public meeting, and for changes that may be required of the document as a result of review by the State Review Board. The following is the submission schedule:

- 0-2 months: NJDOT prepares and submits draft National Register nomination.
- 2-4 months: HPO Registration staff reviews, comments, and returns draft National Register nomination to the NJDOT.

4-6 months: NJDOT addresses comments, prepares draft final, and submits draft final and electronic file of the National Register nomination to the HPO Registration staff for HPO's future use.

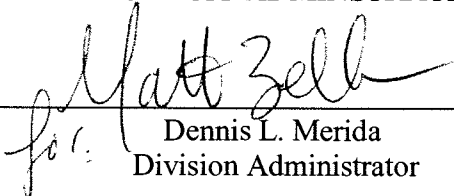
The final submission must be substantive and technically complete pursuant to the National Historic Preservation Act and the New Jersey Register of Historic Places Act.

Stipulation 5: Monitoring will occur during all earth-moving activities within the limits detailed in the attached Archeological Monitoring Program.

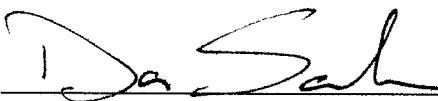
5. Documentation of Satisfaction of Stipulations: NJDOT shall submit a short narrative report with appropriate illustrations demonstrating satisfaction of all of the requirements of this agreement to all signatories within 120 days of completion of construction.
6. Review of Implementation: This agreement shall become null and void if construction is not initiated within five years from the date of execution unless the signatories agree in writing to an extension. If, after five years without action the FHWA chooses to continue with the undertaking, it shall re-initiate its review in accordance with the provisions of 36 CFR Part 800.

SIGNATORIES

FEDERAL HIGHWAY ADMINISTRATION

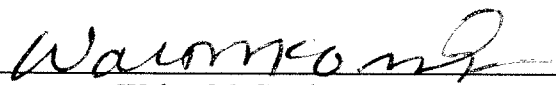
By:  Date: 1/5/09
for: Dennis L. Merida
Division Administrator

NEW JERSEY STATE HISTORIC PRESERVATION OFFICER

By:  Date: 12/23/08
Daniel D. Saunders
Acting Administrator/Deputy State Historic Preservation Officer

INVITED SIGNATORY

NEW JERSEY DEPARTMENT OF TRANSPORTATION

By:  Date: 12/26/08
Walter McGrosky
Director, Division of Capital Program Support

ATTACHMENT A
Memorandum of Agreement

Archeological Monitoring Program
for
Route 30/130 Collingswood/Pennsauken (Phase B)
Borough of Collingswood, Township of Pennsauken, City of Camden
Camden County

August 2008

Purpose

The Purpose of this Archeological Monitoring Program for the above-referenced project is to identify, evaluate, and treat archeological properties, if encountered, within the North Park Drive alignment's area of+ potential effects, and to ensure that no potentially-significant archeological deposits will be adversely affected by the proposed project. Due to time constraints, the NJ Historic Preservation Office (NJHPO) requested the monitoring program in the vicinity of North Park Drive, rather than a revised Phase IB archeological report, in a letter dated July 18, 2008 (HPO-G2008-172 PROD; Log # 03-0776-4).

It was agreed after a telephone conversation on July 29, 2008, between Dave Mudge, staff archeologist at NJ Department of Transportation (NJDOT), and Vincent Maresca, staff archeologist at the NJHPO, that archeological monitoring should only be conducted in *areas of non-fill* in the vicinity of North Park Drive Intersection. Monitoring from the Route 30/130 Bridge over the Cooper River north to approximately Station No. 78+50 is not necessary because there's very low probability that significant archeological resources will be encountered; the area is within the floodplain and no known prehistoric sites have been recorded. Please see enclosed Construction Plans for more detail.

Monitoring Protocol

In order to successfully ensure that no potentially significant archeological deposits or features are destroyed by the proposed undertaking, several conditions will be met:

- A pre-construction meeting will be held between representatives of the NJDOT Bureau of Landscape Architecture and Environmental Solutions (BLAES), NJHPO, NJDOT approved contractor, and the project archeologist at least 7 days prior to any land disturbance activities within the area of concern.
- Under stipulations and guidelines detailed below, all excavations will be performed with the project archeologist present to observe materials as they are removed from the ground.
- Under stipulations and guidelines detailed below, the project archeologist will be authorized to halt work until such time as NJDOT BLAES and the NJHPO cultural resources specialist(s) can visit the site and make a determination regarding a course of action.
- A copy of this archeological monitoring program shall be included by reference in any contract bid documents.

Health and Safety

For the purposes of this proposal, it is assumed that all areas to be impacted by the North Park Drive Intersection improvements will have been screened for the presence or absence of hazardous materials and that a Health and Safety Plan (HASP), developed by others, will have been developed to avoid any physical exposure to those materials. If hazardous conditions exist, the DOT staff archeologist who will be monitoring the proposed project will be OSHA HAZWOPER (1929CFR 1910.120) or compliant archeologist. It is also assumed that the HASP will specify conditions for fieldwork and correct procedures for the handling of artifacts in off-site laboratories and the disposal of by-products from cleaning those artifacts.

Any substantive changes to the archeological monitoring protocol proposed here that are required by the HASP will be presented to the NJDOT and the NJHPO for approval before being implemented.

Monitoring Methodology

All monitoring activities will be conducted under the supervision of Lauralee Rappleye, a qualified NJDOT project archeologist meeting the qualifications specified in the Secretary of the Interior's Standards. All work shall be performed under the instructions and intents set forth in accordance with the Secretary of the Interior's Standards for Archeological Documentation http://www.cr.nps.gov/local-law/arch_stnds_0.htm and the "Guidelines for Archeological Investigations" issued by the former Office of New Jersey Heritage, currently known as the New Jersey Historic Preservation Office (HPO).

Monitoring will take place for all earth-moving (i.e., excavation) activities but will not be present for the installation of the water quality chamber or roadway improvements at the intersection.

It is assumed that the water quality chamber excavation will be performed with mechanical equipment (i.e., a backhoe). The project archeologist will be present for all backhoe excavations and will observe the work as it progresses, and will have the authority, through the Resident Engineer, to request that the backhoe operator temporarily halt work in order to enter the trench excavations (under OSHA 29CFR 1929 Subpart P-compliant conditions) and inspect the excavation, soils, and/or artifact deposits. The monitoring of construction activities will be closely coordinated with the Resident Engineer in order to obtain the maximum amount of information and to prevent the loss of data from misunderstanding and logistical problems. For planning purposes, it can be assumed that the excavations may be halted for inspection up to, but not be limited to, one (1) hour per eight-hour work day.

Trench excavation walls, if applicable, will be selectively hand-cleaned with shovels and trowels to expose soil horizons and/or artifact deposits and features. All exposures will be documented photographically. Scaled drawings of wall profiles and/or cultural features will be made as necessary. The location of any potentially significant archeological deposits will be recorded on scaled profile drawings and plan view maps of the project.

There will be no systematic screening of soils for artifacts. However, representative samples of artifacts encountered during the monitoring procedure will be collected and their provenience recorded as closely as possible. If the artifacts are recovered from contaminated soils, the appropriate precautions for cleaning and processing them will be taken in the laboratory. The protective measures to be taken will be detailed in the HASP. Processing shall include cleaning and cataloging all artifacts, regardless of age or provenience. The catalog shall consist of a description of artifact type, style, construction material, age, or any other diagnostic or culturally significant characteristics.

If cultural deposits are encountered during the course of archeological monitoring that in the opinion of the project archeologist may be considered eligible for inclusion in the *National Register of Historic Places*, a work stoppage will be called for the area in which the deposits are located. This stoppage will last as long as necessary for representatives of NJDOT BLAES and the NJHPO to visit the site and make a determination of the appropriate course of action to take. Work may be allowed to continue in other sections of the culvert alignment to the extent that it will not affect the potentially eligible resource(s). For planning purposes, it can be assumed that work may be halted in a sensitive area for up to two working days.

Reporting

A brief report presenting the results of the archeological monitoring will be prepared at the conclusion of the project, which will be considered an addendum to the Cultural Resources Survey Report *Route 30/130 Mainline Roadway Improvement, Phase B*, prepared by Dewberry-Goodkind (September 2007) and approved by your office in a letter dated 7/18/08. Additionally, no background research of the area will be conducted as this information is contained in the above-noted report. The report will contain a description of the results of the monitoring including photographs, plan, and profile drawings. A catalog of all artifacts collected during the monitoring will be included. The report will be produced in accordance with the 1996 New Jersey SHPO *Guidelines for Cultural Resources Investigations: Identification of Archeological Resources*. A copy of the monitoring report with original photographs will be submitted to the NJHPO Library.

FHWA-NJ-4(f) – January 2008
Federal Highway Administration

Federal Project No.: MG-0016 (148)

Replacement of Route 30/130 Bridge over the Cooper River
(Structure No. 0405-153)
City of Camden, Township of Pennsauken
Camden County

**Nationwide Programmatic
Section 4(f) Evaluation for Use of a Historic Bridge**

Submitted Pursuant to
Department of Transportation Act of 1968
49 U.S.C. 303,
and Section 18(a) of Federal Aid Highway Act of 1968,
23 U.S.C. 138

Prepared by:
U.S. Department of Transportation
Federal Highway Administration
and
New Jersey Department of Transportation

for 

Dennis Merida, Division Administrator, Federal Highway Administration

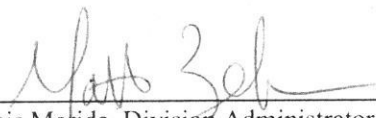
1/12/09
Date of Approval

Replacement of Route 30/130 Bridge over the Cooper River
(Structure No. 0405-153)
City of Camden, Township of Pennsauken
Camden County

**Nationwide Programmatic Section 4(f) Evaluation
For Minor Involvements with Public Parks**

Submitted Pursuant to
Department of Transportation Act of 1968
49 U.S.C. 303,
and Section 18(a) of Federal Aid Highway Act of 1968,
23 U.S.C. 138

Prepared by:
U.S. Department of Transportation
Federal Highway Administration
and
New Jersey Department of Transportation


for _____
Dennis Merida, Division Administrator, Federal Highway Administration

1/12/09
Date of Approval

JK

NEW JERSEY DEPARTMENT OF TRANSPORTATION
Memorandum

TO: Dan Saunders, Acting Administrator and Deputy SHPO
New Jersey Historic Preservation Office
Department of Environmental Protection

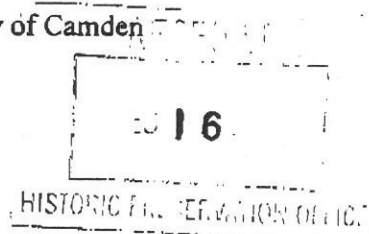
FROM: Janet A. Fittipaldi, Executive Manager
Bureau of Landscape Architecture and Environmental Solutions
Department of Transportation

DATE: December 16, 2008

SUBJECT: Rt. 30/130 Collingswood/Pennsauken (Phase B)
Borough of Collingswood, Township of Pennsauken, City of Camden
Camden County
Section 4(f): *de minimis*

PHONE: 530-5462

03-0776-13J
HPO-2008-171



The New Jersey Department of Transportation (NJDOT) is planning to use Federal Highway Administration (FHWA) funding for Phase B of the Collingswood Circle Elimination Project located in Camden County. The project involves widening Route 30/130 from two (2) to three (3) lanes from Haddon Avenue north to the Cooper River Bridge. Improvements also involve rehabilitating the Haddon Avenue Bridge (Structure No. 0405-152) and replacing the Cooper River Bridge (Structure No. 0405-153). The Cooper River Bridge is classified as structurally deficient and scour critical. The proposed project is designed to improve the safety and operational conditions along Route 30/130.

Three (3) National Register-eligible resources are located within the project's Area of Potential Effects. The resources and eligibility/effects under Section 106 are as follows:

- The Harleigh Cemetery (DOE: 6/15/95): No Adverse Effect
- Cooper River Park Historic District (DOE: 2/28/94): Adverse Effect
- Camden and Atlantic Railroad Historic District (SHPO Opinion: 9/17/01): No Effect

A Cultural Resources Survey Report: *Route 30/130 Mainline Roadway Improvement, Phase B Borough of Collingswood, City of Camden, Township of Pennsauken, Camden County* (September 2007) was prepared by A.D. Marble & Company and submitted to your office for review and concurrence regarding eligibility and effects on January 24, 2008.

The purpose of this memorandum is to notify your office that the NJDOT intends to use *de minimis* Evaluation of Impacts for the strip taking of Harleigh Cemetery property under Section 4(f).

The NJDOT met with representatives of the FHWA on March 10, 2008 to discuss Section 4(f) issues and the types of Section 4(f) documents that will be required for this project. On March 24, 2008, we received concurrence from Jeanette Mar of the FHWA via phone for the use of *de minimis* Evaluation of Impacts for the small strip taking of the Harleigh Cemetery.

De minimis Evaluation of Impacts to Harleigh Cemetery:

Based on review of the rigorous participation of consulting and interested parties and the reduction, through redesign, of the project from an Adverse Effect to a no Adverse Effect to the Harleigh Cemetery under Section 106, the NJDOT feels *de minimis* Evaluation of Impact is applicable for impacts to this site. The NJDOT intends to tint, texture and/or finish the proposed retaining wall and/or fence to be placed in front of the cemetery caretaker's house.

We are requesting that you acknowledge the use of *de minimus* Evaluation of Impact under Section 4(f) by signing the line below.

I understand it is the FHWA intent to make a *de minimis* finding for impacts to the Harleigh Cemetery.



Mr. Dan Saunders
Acting Administrator/Deputy State Historic Preservation Officer

12/23/08

Date

Cost/Benefit Analysis of NJDOT Route 30/130 Reconstruction Project

For TIGER II Grant Application

August 2010

The logo for Rutgers University, featuring the word "RUTGERS" in a red, serif font. The letter "R" is stylized with a long, sweeping tail that extends downwards and to the left.

Rutgers Intelligent Transportation Systems Laboratory (RITS)
Rutgers, The State University of New Jersey
CoRE Building 7th Floor, Busch Campus
96 Frelinghuysen Rd, Piscataway, NJ 08854
<http://rits.rutgers.edu>

EXECUTIVE SUMMARY

In response to USDOT's TIGER II Discretionary Grants notice the New Jersey Department of Transportation (NJDOT) is submitting the Route 30/130 reconstruction project for funding. Rutgers RITS Lab conducted benefit-cost analysis of the project by estimating the highway network-related costs of travel for the no-build and build alternatives. The benefit-cost analysis was conducted to meet the criteria put forth by USDOT, with special emphasis on the following areas:

1. State of good repair
2. Economic impacts
3. Environmental sustainability
4. Livability
5. Safety

The evaluation criteria is met by estimating the benefits of the project as the difference between the no-build and build scenarios modeled in Synchro by Dewberry, the design consultant. The model output is processed and monetized into costs based on functions developed using New Jersey-specific and national data. The functions estimate costs from the network based on reductions to maintenance costs, operating costs, congestion costs, air pollution costs, noise pollution costs, and accident costs.

The cost-benefit analysis conducted weighed the cost of the project against the differences between the no-build and build estimates of the Synchro output, by forecasting the direct benefits of the Route 30/130 reconstruction. Additional crash study was conducted to determine the savings in accident costs from the proposed new safety features. Based on value of time guidelines of USDOT and discount rates suggested by U.S. Office of Management and Budget the costs and benefits are translated to present values and compared. Based on the analysis and adjusted for sensitivity, this project is estimated to have a benefit-cost ratio of 0.90 – 1.24, depending on the value of time the assumption used. Thus, the transportation-related benefits alone make this project nearly beneficial using conservative assumptions, or beneficial using an upper bound assumption.

INTRODUCTION

This report describes the economic evaluation framework of the transportation-related benefits from the proposed Route 30/130 improvement project. The goal of this study is to observe the benefits to the transportation system incurred by changes to Route 30/130 by conducting cost-benefit analysis to evaluate the project's viability. Cost-benefit analysis requires the quantification and comparison of various benefits and costs generated by a project over time. The effects from the project are first enumerated and classified as benefits and costs, and then each effect is quantified and expressed in monetary terms using appropriate conversion factors ⁽¹⁾. Benefits arise from the savings to users and society attributed to the project, with transportation-related benefits in terms of the improvement of travel conditions, which can be defined in multiple dimensions (access, time, safety, reliability, etc.). As per USDOT guidelines, the areas of focus for transportation projects are impacts to the state of good repair, economy, livability, sustainability, and safety.

Using local traffic network analysis conducted by Dewberry ⁽²⁾ the proposed improvements are modeled and the existing (no-build) and modified (build) cases are compared. Cost-benefit analysis is conducted from the output of both models for the long-term benefits of the Route 30/130 operational improvements. Crash analysis using accident records is also conducted. The following sections describe the cost-benefit evaluation process, including the various types of benefits quantified from the previous work. Finally the results of the cost-benefit analysis are presented and discussed for project evaluation.

METHODOLOGY

Synchro analysis previously conducted for this corridor by Dewberry Inc. is on a detailed and local scale of the Route 30/130 corridor. There are no-build and build networks for AM and PM peak periods, which provide estimates of effects on delays and other traffic parameters due to the proposed improvements. The model output is processed using ASSIST-ME, a tool developed to post-process highway assignment

results from transportation planning models. ASSIST-ME is a GIS-based Full Cost Estimation tool that can, among its other capabilities, be used to estimate the recurring annual benefits of transportation projects. ASSIST-ME has been developed to estimate the reductions in various costs of highway transportation using cost reduction models specific to New Jersey, or national data if NJ-specific data were unavailable. ASSIST-ME is adapted to convert Synchro output into costs for cost-benefit analysis for this study. Using the before and after network results (for the base year), the benefits of the project are estimated by the reductions in various cost categories, such as congestion, vehicle operating, accident, air pollution, noise and maintenance costs. Accordingly, the proposed methodology combines sound economic theory with the output of a highly detailed transportation demand model for estimating the benefits to the highway network.

ASSIST-ME Analysis Tool

Using network output files from the traffic analysis, ASSIST-ME is used to compare the two different networks (base and modified), and estimate the impacts on trip costs. The calculation of link costs can be conducted in ASSIST-ME for all network links or select links by user-defined criteria. Link costs can be calculated for two networks, before and after network improvements, and the difference between the outputs can be taken as the network benefits of the improvements.

The full costs of travel in New Jersey were previously studied to quantify the effects of travel in terms of costs to users and their externalities. New Jersey-specific data was used to estimate the costs of travel when possible and national data otherwise. Calculating and monetizing the costs of travel is critical to conducting cost-benefit analysis, and understanding the full local and regional effects of the project. ASSIST-ME uses the estimated cost functions to calculate the costs of all users for all links within the network, for the base and modified cases. The benefits are then taken as the difference between the costs for the two cases. A summary of the equations used by ASSIST-ME can be found in Table 1 and a full description of the costs and the development of the total cost functions is provided in the appendix.

Table 1 – Cost Functions Used in ASSIST-ME

Cost	Total Cost Function	Variable Definition	Data Sources
Vehicle Operating	$C_{opr} = 7208.73 + 0.12(m/a) + 2783.3a + 0.143m$	a: Vehicle age (years) m: Vehicle miles traveled	AAA ⁽²⁾ , USDOT ⁽³⁾ , KBB ⁽⁴⁾
Congestion	$C_{cong} = \begin{cases} Q \cdot \frac{d_{ab}}{V_o} \left(1 + 0.15 \left(\frac{Q}{C} \right)^4 \right) VOT & \text{if } Q \leq C \\ Q \cdot \frac{d_{ab}}{V_o} \left(1 + 0.15 \left(\frac{Q}{C} \right)^4 \right) VOT + Q \left(\frac{Q}{C} - 1 \right) \frac{VOT}{2} & \text{if } Q > C \end{cases}$	Q = Volume (veh/hr) d = Distance (mile) C = Capacity (veh/hr) VOT = Value of time (\$/hr) V _o = Free flow speed (mph)	Mun ⁽⁵⁾ Small and Chu ⁽⁶⁾
Accident	<p>Category 1: Interstate-freeway</p> $C_{acc} = 127.5Q^{0.77} \cdot M^{0.76} \cdot L^{0.53} + 114.75Q^{0.85} \cdot M^{0.75} \cdot L^{0.49} + 198,900Q^{0.17} \cdot M^{0.42} \cdot L^{0.45}$	Q = Volume (veh/day) M = Path length (miles) L = no of lanes	FHWA ⁽⁷⁾ USDOT ⁽⁸⁾
	<p>Category 2: principal arterial</p> $C_{acc} = 178.5Q^{0.58} \cdot M^{0.69} \cdot L^{0.43} + 18,359Q^{0.45} \cdot M^{0.63} \cdot L^{0.47}$		
	<p>Category 3: arterial-collector-local road</p> $C_{acc} = 229.5Q^{0.58} \cdot M^{0.77} \cdot L^{0.77} + 9,179.96Q^{0.74} \cdot M^{0.81} \cdot L^{0.75}$		
Air pollution	$C_{air} = Q(0.01094 + 0.2155F)$ <p>where;</p> $F = 0.0723 - 0.00312V + 5.403 \times 10^{-5}V^2$	F = Fuel consumption at cruising speed (gl/mile) V = Average speed (mph) Q = Volume (veh/hr)	EPA ⁽⁹⁾
Noise	$C_{noise} = 2 \int_{r_j=50}^{r_2=r_{max}} (L_{eq} - 50) DW_{avg} \frac{RD}{5280} dr$ <p>where;</p> $K = K_{car} + K_{truck}$ $K = \frac{F_c}{V_c} \left(V_c^{4.174} \cdot 10^{0.115} + 10^{5.03 F_{ac} + (1 - F_{ac}) 6.7} \right) + \frac{F_{tr}}{V_{tr}} \left(V_{tr}^{3.588} \cdot 10^{2.102} + 10^{7.43 F_{atr} + (1 - F_{atr}) 7.4} \right)$ $L_{eq} = 10 \log(Q) + 10 \log(K) - 10 \log(r) + 1.14$	Q = Volume (veh/day) r = distance to highway K = Noise-energy emis. K _{car} = Auto emission K _{truck} = Truck emission F _c = % of autos, F _{tr} = % of trucks F _{ac} = % const. speed autos F _{atr} = % of const. speed tr. V _c = Auto Speed (mph) V _{tr} = Truck Speed (mph)	Delucchi and Hsu ⁽¹⁰⁾

Maintenance	$C_M = \frac{796.32M^{0.40}L^{0.39}}{P}$ <p>where;</p> $P = \frac{N}{ESAL}$ $ESAL = Q \times 365 \times P_t \times T_f$	<i>M</i> : roadway length (miles) <i>L</i> : number of lanes <i>P</i> : design cycle period <i>ESAL</i> : Equivalent single axle load <i>N</i> : number of allowable repetitions (1,500,000) <i>Q</i> : Traffic volume (veh/day) <i>P_t</i> : Percentage of trucks in traffic <i>T_f</i> : Truck Factor	Ozbay et al. ⁽¹¹⁾
-------------	---	--	------------------------------

The following subsections describe the areas in which benefits are expected, and how they are calculated. USDOT guidelines for TIGER II Discretionary Grant applications call for special attention to the following areas:

1. State of good repair
2. Economic impacts
3. Environmental sustainability
4. Livability
5. Safety

These criteria are met in cost-benefit analysis by monetizing the estimates of the traffic models using the functions in Table 1.

State of Good Repair

The state of roadway infrastructure is critical to vehicle operators and agencies tasked with maintaining it. The benefits to the infrastructure resulting from this project are immediately realized by the reconstructed roadways and their pavement. In addition to this benefit, maintenance costs attributable to vehicles using Route 30/130 and adjacent roadways in the network are calculated. The needs and costs for resurfacing were studied ⁽¹¹⁾ to monetize the maintenance costs of links in the network, and are calculated for base and modified modeled networks. The difference in the maintenance costs (i.e. benefits) arise from changes between traffic conditions and travel patterns

between the two networks. The analysis thus calculates the cost of maintenance that will be due for the roadways due to the vehicles using them.

Economic Effects

The transportation-related effects to the economy are largely on individuals' and businesses' travel times and productivity in commuting and shipping. Transportation models calculate vehicular flows and travel times on network links, which are used as measures of congestion and vehicle hours traveled. These estimates are monetized as congestion costs by a value of time (VOT) multiplying factor, which can be different for cars, trucks, and other modes. The congestion costs for the base and modified networks are then compared to find the congestion savings brought on by the project, the most critical valuation component in cost-benefit analysis. These congestion changes can occur in the project corridor, and can spread out to parallel roadways and throughout the network. In addition, vehicle operating costs for users are calculated.

Livability & Environmental Sustainability

Environmental effects are a critical component of transportation, and model output can be used to calculate probable environmental impacts due to changes in traffic conditions brought about the project. In this study noise and air pollution costs are estimated for the no-build and build and modified networks. These costs are estimated based on volume and speed estimates generated by the model for both cases, with the difference equaling the environmental benefit of the project.

Safety

Safety improvements are a critical component of most transportation projects. In this analysis, model estimates are compared to estimate accident costs attributable to traffic using all roadways in the network. These accident costs are calculated based volumes and physical roadway characteristics. In addition, NJDOT crash statistics are analyzed for recent years to determine the number of crashes on the existing network. Using FHWA guidelines ^(7, 13), the proposed improvements' effects on the safety and crash probability of Route 30/130 are analyzed and converted to cost savings.

Cost-Benefit Analysis

Even though most transportation policies are local, their influence often spreads out beyond the area of implementation. Responding to road changes, traffic will shift from the impacted part of the network to other areas, and the intensity of the shift will depend on several factors, such as road characteristics, demand structure, and network configuration ⁽¹²⁾. Thus, quantification of the likely changes in transportation benefits and costs associated with the capacity expansion is crucial for policy planners in order to determine the net benefits from capacity expansion projects. Such information can be used in the process to select the projects that are most likely to generate highest return to society.

In economic evaluation of projects, there are several commonly used economic indicators that can be placed in a final comparable format. The Cost-Benefit ratio (B/C) is one of the most commonly used performance measure. The B/C ratio can be calculated using the following formula:

$$\frac{PVB}{PVC} = \frac{\sum_{t=0}^T \frac{B_t}{(1+d)^t}}{\sum_{t=0}^T \frac{C_t}{(1+d)^t}}$$

Where, PVB = Present value of future benefits, PVC = Present value of future costs, d = Discount Rate, t = time of incurrence (year), T = Lifetime of the project or Analysis period (years)

The most significant parameters in the analysis that should be tested for sensitivity are:

1. Discount rate
2. Timing of future rehabilitation activities
3. Traffic growth rate
4. Unit costs of the major construction components.

Given the cost of the project, and then also given that the benefits are estimated, the net present value of the project can be calculated. A discount rate is used to convert future costs and benefits to present values. Various discount rates recommended by the

U.S. Office of Management and Budget (USOMB) ⁽¹⁴⁾ are shown in Table 2. Table 3 shows the VOT ranges, as suggested by USDOT ⁽¹⁵⁾, used in the analysis.

Table 2 – Real discount rates for cost-benefit analysis ⁽¹⁴⁾

3-Year	5-Year	7-Year	10-Year	20-Year	30-Year
0.9	1.6	1.9	2.4	2.9	2.7

Table 3 – Range of Value of Time (VOT) ⁽¹⁵⁾

Time Period	Passenger Cars	Trucks
Peak	\$18.10 - \$27.20	\$19.90
Off- Peak	\$7.90 - \$13.60	\$19.90

RESULTS

The resulting model outputs of the build network are compared in ASSIST-ME against the no-build network. The total cost of this project is estimated at \$41.3 million. The following subsections break down the benefit estimates, where it should be noted that the benefits calculated in this report only account for the transportation-related impacts of this project.

The benefits related to the street improvements are calculated from the build vs. no-build Synchro base networks prepared by Dewberry. Networks are available for the AM Peak and PM Peak periods. It is assumed that the impacts will be observed for 8 hours of the day, corresponding to these networks (6am – 10am, 3pm – 7pm), and no network benefits are observed during the midday and overnight periods. The networks themselves include Route 30/130 in Pennsauken and Collingswood and the adjacent intersecting roadways. Costs are calculated for all links in the networks, and the benefits are taken as the difference in costs between the build and no-build networks. As described, ASSIST-ME calculates maintenance costs, operating costs, congestion costs, noise and air pollution costs, and accident costs, which correspond to social benefits to the state of good repair, the economy, environmental sustainability, and safety.

The congestion-related economic impacts are calculated as the cost to users, i.e., vehicle operating and congestion costs. Time spent in congestion is the largest contributor to travel costs, and is very sensitive to the value of time (VOT) assumption used. Accordingly, benefit estimates are produced for the lower and upper bounds of VOT shown in Table 3. The results in Table 4 indicate that the Route 30/130 reconstruction has a positive impact on users of the roadway. The daily costs for vehicles in the network and their externalities are decreasing between \$11,000 and \$17,000 per day depending on the value of time assumption. Accordingly, assuming benefits are seen for 250 workdays in the year, annual savings are \$2.9 – 4.4 million.

Table 4 – Daily and annual benefits from Synchro network (\$)

	Daily Costs		Annual Costs	
	<i>Low VOT</i>	<i>High VOT</i>	<i>Low VOT</i>	<i>High VOT</i>
No-build	\$34,302	\$47,568	\$8,575,461	\$11,891,986
Build	\$22,357	\$30,248	\$5,589,246	\$7,562,095
<i>Benefit</i>	<i>\$11,945</i>	<i>\$17,320</i>	<i>\$2,986,215</i>	<i>\$4,329,891</i>

Additional safety benefits are measured by the mitigation of accident costs due to the new alignment not captured by the accident cost estimation in ASSIST-ME. According to NJDOT crash records for this section of Route 30/130 there were 440 accidents on this section between 2004 and 2009, 159 of which were injury accidents. According to FHWA guidelines ⁽²⁷⁾, accidents costs can be monetized according to Table 5. Additionally, FHWA provides guidelines on the accident mitigation potential of safety improvements to roadways ⁽¹⁵⁾. There are a number of safety features of this project, including wider shoulders, longer acceleration lanes, and a new bridge deck. The high number of rear-end crashes is due to congestion, which is eased by the extension of auxiliary lanes. According to FHWA guidelines, acceleration lanes can reduce all crashes by 26% and rear-end crashes by 75%. Including all the new safety features, the accident reduction factor of this project is conservatively taken as 30%. Table 6 calculates the potential annual accident cost savings due to the realignment of this project based on 2005-2007 accident rates.

Table 5 - Average comprehensive cost by accident type ⁽²⁷⁾

Accident Type	Cost
Fatal	\$3,673,732
Incapacitating	\$254,335
Evident	\$50,867
Possible	\$26,847
Property Damage	\$2,826

Note: All costs are in 2008 dollars, converted from 1994 values using 2.5% discount rate.

Table 6 - Average annual accident cost (\$)

Type of Accident Cost	2004	2005	2006	2007	2008	2009	Average
Property Damage Accident Cost	\$144,126	\$169,560	\$124,344	\$110,214	\$138,474	\$107,388	\$132,351
Injuries Accident Cost	\$1,204,567	\$1,010,282	\$1,126,853	\$777,140	\$971,425	\$1,049,139	\$1,023,234
Fatalities Accident Cost	\$3,673,732	-	-	-	-	-	\$612,289
<i>Total Accident Cost</i>	<i>\$5,022,425</i>	<i>\$1,179,842</i>	<i>\$1,251,197</i>	<i>\$887,354</i>	<i>\$1,109,899</i>	<i>\$1,156,527</i>	<i>\$1,767,874</i>
30% Reduction Annual Benefit							\$530,362

Cost-Benefit Analysis

Cost-benefit analysis due to transportation network-related effects is conducted for the roadway-related improvements and the bridge closure aversion components of this analysis. The daily cost savings estimates are annualized by multiplying by 250, roughly equivalent to the number of workdays in a year. Then the benefits are discounted over future years according to the USOMB guidelines shown in Table 2. It is assumed that the benefits linearly decrease to zero over 25 years, by which time the increase in traffic volume is expected to counterbalance the benefits. Table 7 shows the total benefits of the project a 2.8% discount rate, for a period of 25 years. It is assumed that after 25 years, the benefits have decreased to zero due to traffic growth.

The cost benefit (B/C) ratios for this project using conservative and high values of time are also produced in Table 7. The B/C ratios shown can be considered as an indication of the long-term economic viability of these projects, not necessarily as point estimates of their exact economic value. Moreover, over-interpretation of these B/C ratios should be avoided since there are many modeling and estimation assumptions that can affect these. Additionally, these B/C ratios only include the transportation-related benefits of this project. A B/C ratio greater than 1 indicates a beneficial project, thus this project can be considered as beneficial to Route 30/130 and its users depending on the assumptions used. Even using conservative assumptions, the B/C ratio is close to 1.

Table 7 – Benefits and costs for 25-year analysis period (\$)

Estimated Project Cost	Benefits	
	<i>Low VOT</i>	<i>High VOT</i>
\$41,300,000	\$2,986,215	\$4,329,891
<i>B/C Ratio</i>	<i>0.90</i>	<i>1.24</i>

REFERENCES

1. Banister, D. and Berechman, J. (2000) "Transport Investment and Economic Development" University College London Press.
2. American Automobile Association, Your Driving Costs 2003, American Automobile Association (www.ouraaa.com), 2003. Based on Runzheimer International data.
3. US Department of Transportation. Cost of Owning and Operating Automobiles, Vans and Light Trucks, 1999.
4. Kelly Blue Book Website, 2006. Available online at <http://www.kbb.com/>.
5. Mun, Se-IL. Traffic Jams and Congestion Tolls. *Transportation Research B*, Vol. 28, 1994, pp. 365-375.
6. Small K., and X. Chu. Hypercongestion. *Journal of Transport Economics and Policy*, Vol. 37, 2003, pp. 319-352.

7. Federal Highway Administration (FHWA). *Motor Vehicle Accident Costs*, 2005, Available online at <http://www.fhwa.dot.gov/legsregs/directives/techadvs/t75702>
8. US Department of Transportation. *Crash Records*, 2005, Available online at <http://www.state.nj.us/transportation/refdata/accident/rawdata01-03.shtm>
9. Environmental Protection Agency Publications. *National Emission Trends*. 1995.
10. Delucchi, M., and S. Hsu. The External Damage Cost of Noise Emitted from Motor Vehicles. *Journal of Transportation and Statistics*, Vol. 1, 1998, pp. 1-24.
11. Ozbay, K., Bartin, B. and Berechman, J. (2001). "Estimation and Evaluation of Full Marginal Costs of Highway Transportation in New Jersey", *Journal of Transportation and Statistics*, Vol. 4, No.1, April 2001. (With Ozbay, K. and Berechman, J.)
12. Safirova, E., K. Gillingham, S. Houde. Measuring Marginal Congestion Costs of Urban Transportation: Do Networks Matter? *Transportation Research A*, Vol. 41, 2007, pp. 734-749.
13. FHWA. Toolbox of Countermeasures and Their Potential Effectiveness for Roadway Departure Crashes. Available online at <http://safety.fhwa.dot.gov/tools/crf/resources/briefs/rdwydepartissue.cfm#table5>.
14. U.S. Office of Management and Budget (2008). "Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs". Circular No: A-94. Appendix C.
15. USDOT. *Departmental Guidance on the Evaluation of Travel Time in Economic Analysis*", Memo, USDOT Available online at http://ostpxweb.dot.gov/policy/safety/VOT_Guidance_Revision_1.pdf, April 9, 1997.
16. Ozbay, K., Yanmaz-Tuzel O., Mudigonda S., Bartin B., and Berechman J. Cost of Transporting People in New Jersey-Phase II. *New Jersey Department of Transportation Final Report*, Report No FHWA/NJ-2007-003, 2007.
17. Apogee Research (1994). "The Costs of Transportation", Conservation Law Foundation (Boston; www.clf.org).
18. K. Gwilliam. *The Value of Time in Economic Evaluation of Transport Projects; Lessons from Recent Research*. World Bank (Washington DC), January 1997.
19. Mayeres, I., Ochelen, S. and Proost., S. (1996) "The Marginal External Cost of Urban Transport", *Transportation Research Part D*, No.2, pp. 111-130.

20. Booz Allen Hamilton, ACT (2003). "Transport Costing Study", Canberra Department of Urban Services Available online at <http://www.actpla.act.gov.au/plandev/tp-intro/tp-archive/transportstudy.pdf>.
21. I.T. Transport. "The Value of Time in Least Developed Countries", Department for International Development, UK under its Knowledge and Research (KaR) Programme, available online at [www.transport-links.org /transport_links](http://www.transport-links.org/transport_links), Accessed June 2005.
22. U.S. Department of Labor (2007). "State Occupational and Wage Estimates New Jersey". Available online at http://www.bls.gov/oes/2007/may/oes_nj.htm#b00-0000. Accessed December 2008.
23. National Safety Council (2007). "Estimating the Costs of Unintentional Injuries." Available online at <http://www.nsc.org/resources/issues/estcost.aspx>. Accessed January 2009.
24. National Highway Traffic Safety Administration, US Department of Transportation (2000). "The Economic Impact of Motor Vehicle Crashes". Available online at <http://www.nhtsa.dot.gov>. Accessed February 2009.
25. Federal Highway Administration (1994). "Motor Vehicle Accident Costs." Available online at <http://www.fhwa.dot.gov/legsregs/directives/techadvs/t75702.htm>. Accessed September 2005.
26. American Association of State Highway and Transportation Officials (2007) "Poll Results: Crash Costs used for Prioritizing Safety Projects." Available online at <http://www.transportation.org/?siteid=62&pageid=1622>. Accessed February 2009.
27. Ozbay, K., Bartin, B., Yanmaz-Tuzel, O., Berechman, J. (2008) "Alternative Methods for Estimating Full Marginal Costs of Highway Transportation", Transportation Research A, Vol. 41, pp. 768-786.
28. Small, K. and Kazimi, C. (1995). "On Costs of Air Pollution from Motor Vehicles," *Journal of Transport Economics and Policy*, 29 (1), pp. 7-32.
29. Small, K. (1977). "Estimating the Air Pollution Cost of Transportation Modes," *Journal of Transport Economics and Policy*, Vol. 11, pp. 109-132.
30. Nelson, J. P., May 1982. Highway Noise and Property Values: A Survey of Recent Evidence. *Journal of Transport Economics and Policy*, pp. 117-138.

APPENDIX

Reductions in each cost category attributable to a project were estimated using data obtained from NJDOT and other state and national sources. Data on vehicle operating costs, accident costs, and infrastructure costs are NJ-specific. STATA software is used to estimate the parameters of each cost function. Congestion and environmental costs, however, were based on relevant studies in the literature. The parameters of the cost functions were modified to reflect NJ-specific conditions. The individual cost reduction functions are discussed below.

Vehicle Operating Costs

Vehicle operating costs are directly borne by drivers. These costs are affected by many factors, such as road design, type of the vehicle, environmental conditions, and flow speed of traffic. In this study, vehicle operating costs depend on depreciation cost, cost of fuel, oil, tires, insurance, and parking/tolls. Depreciation cost is itself a function of mileage and vehicle age; other costs are unit costs per mile. In this study, we employed the depreciation cost function estimated by Ozbay *et al.* ⁽¹⁶⁾

The other cost categories, namely, cost of fuel, oil, tires, insurance, parking and tolls are obtained from appropriate AAA report ⁽²⁾ and USDOT report ⁽³⁾. The unit operating costs given in Table A1 are in 2005 dollars.

Table A1 - Operating costs (in 2005 dollars) ^(2, 3)

Operating Expenses	Unit Costs
Gas & oil	0.087 (\$/mile)
Maintenance	0.056 (\$/mile)
Tires	0.0064 (\$/mile)
Insurance Cost	1,370(\$/year)
Parking and Tolls	0.021 (\$/mile)

Congestion Costs

Congestion cost is defined as the time-loss due to traffic conditions and drivers' discomfort, both of which are a function of increasing volume to capacity ratios. Specifically,

- **Time loss** can be determined through the use of a travel time function. Its value depends on the distance between any OD pairs (d), traffic volume (Q) and roadway capacity (C).
- **Users' characteristics:** Users traveling in a highway network are not homogeneous with respect to their value of time.

Since all these cost categories are directly related to travel time, the monetary value of time (VOT) is a crucial determinant of cost changes. Depending on the mode used by the traveler, travel time costs may include time devoted to waiting, accessing vehicles, as well as actual travel.

In a study of congestion costs in Boston and Portland areas, Apogee Research estimated congestion costs using VOT values based on 50% of the average wage rate for work trips and 25% for other trip purposes⁽¹⁷⁾. Based on a review of international studies, K. Gwilliam⁽¹⁸⁾ concluded that work travel time should be valued at 100% wage rate, whereas non-work travel time should be valued at 30% of the hourly wage rate, given the absence of superior local data. Similarly, the USDOT⁽¹⁵⁾ suggests VOT values between 50% and 100% of the hourly wage rate depending on travel type (personal, business). In these studies, user characteristics, mode of travel, or time of day choices are not included in the VOT estimation. To address these issues, stated preference surveys are conducted in some studies to estimate VOT for different modes and trip types^(19, 20, 21).

In this study, we adopt the VOT ranges based on average hourly wages as recommended by the USDOT⁽¹⁵⁾. Following the USDOT, we assume two vehicle types: passenger cars and trucks. For passenger cars, the VOT range, based on the hourly wage, is assumed to be between 80% and 120% of the average hourly wage within peak period, and between 35% and 60% of the average hourly wage within off-peak periods, respectively. For trucks, the VOT range, based on the hourly wage, is assumed to be 100% within both off-peak and peak periods.

U.S. Department of Labor ⁽²²⁾ reported average hourly wages for all occupations in New Jersey. The report indicates that, in 2007, the average hourly wage for all occupations was \$22.64 per hour. The hourly wage in trucking was \$19.90 per hour.

Table A2 shows the VOT ranges, as suggested by USDOT ⁽¹⁵⁾, used in our analysis.

Table A2 - Value of Time Ranges

Time Period	Passenger Cars	Trucks
Peak	\$18.10 - \$27.20	\$19.90
Off- Peak	\$7.90 - \$13.60	\$19.90

The Bureau of Public Roads travel time function was used to calculate time loss. Thus, the total cost of congestion between a given OD pair can be calculated by the time loss of one driver along the route, multiplied by total traffic volume (Q) and the average value of time (VOT).

Accident Costs

Accident costs are the economic value of damages caused by vehicle accidents/incidents. These costs can be classified in two major groups: (1) cost of foregone production and consumption, which can be converted into monetary values, and (2) life-injury damages, which involves more complex techniques to convert into monetary values. Costs associated with these two categories are given in Table A3.

The accident cost function estimates the number of accidents that occur over a period of time, and converts the estimated number of accidents into a dollar value by multiplying the number of accidents by their unit cost values. The cost of any specific accident varies of course with individual circumstances. However, similar accidents typically have costs that fall within the same range.

Table A3 - Accident Cost Categories

Pure Economic Costs	
Major costs	Description
Medically related costs	Hospital, Physician, Rehabilitation, Prescription
Emergency services costs	Police, Fire, ambulance, helicopter services, incident management services
Administrative and legal costs	Vehicle repair and replacement, damage to the transportation infrastructure
Life Injury Costs	
Employer costs	Wages paid to co-workers and supervisors to recruit and train replacement for disabled workers, repair damaged company vehicles, productivity losses due to inefficient start-up of substitute workers
Lost productivity costs	Wages, fringes, household work, earnings lost by family and friends caring for the injured
Quality of life costs	Costs due to pain, suffering, death and injury
Travel delay costs	Productivity loss by people stuck in crash related traffic jams

Accidents were categorized as fatal, injury and property damage accidents. Accident occurrence rate functions for each accident type were developed using the traffic accident database of New Jersey. Historical data obtained from NJDOT show that annual accident rates, by accident type, are closely related to traffic volume and roadway geometry.

Traffic volume is represented by the average annual daily traffic. The **roadway geometry** of a highway section is based on its engineering design. There are various features of a roadway geometric design that closely affect the likelihood of an accident occurrence. However, these variables are too detailed to be considered in a given function. Thus, highways were classified on the basis of their functional type, namely Interstate, freeway-expressway and local-arterial-collector. It was assumed that each highway type has its unique roadway design features. This classification makes it

possible to work with only two variables: **road length** and **number of lanes**¹. There are three accident occurrence rate functions for each accident type for each of the three highway functional types. Hence, nine different functions were developed. Regression analysis was used to estimate these functions. The available data consists of detailed accident summaries for the years 1991 to 1995 in New Jersey. For each highway functional type, the number of accidents in a given year is reported.

The unit cost of each type of accident directly affects the cost estimates. The National Safety Council⁽²³⁾ reported the average unit cost per person for three accident types, as shown in Table A4. These values are comprehensive costs that include a measure of the value of lost quality of life which was obtained through empirical studies based on observed willingness to pay by individuals to reduce safety and health risks.

Table A4 - Average Comprehensive Cost per person by accident type⁽²³⁾

Accident Type	Cost
Death	\$4,100,000
Incapacitating Injury	\$208,500
Non-incapacitating Injury	\$53,200
Possible Injury	\$25,300
Property Damage	\$2,300

Accident cost estimation is not exact, it can only be approximated. The studies in the relevant literature show varying unit costs for accidents. A NHTSA study⁽²⁴⁾ reports the lifetime economic cost of each fatality as \$977,000. Over 80% of this amount is attributable to lost workplace and household productivity. The same study reports that the cost of each critically injured survivor is \$1.1 million⁽²⁴⁾.

A study by FHWA⁽²⁵⁾ reported the comprehensive cost of each accident by severity, as shown in Table A5.

¹ This approach is also consistent with previous studies e.g., Mayeres et al. (20)

Table A5 - Average comprehensive cost by accident type ⁽²⁵⁾

Accident Type	Cost
Fatal	\$3,673,732
Incapacitating	\$254,335
Evident	\$50,867
Possible	\$26,847
Property Damage	\$2,826

Note: All costs are in 2008 dollars, converted from 1994 values using 2.5% discount rate.

A recent poll conducted by AASHTO ⁽²⁶⁾ reported accident costs by severity. The reported figures shown in Table A6 reflect the average accident costs used by 24 states for prioritizing safety projects.

Table A6 - Average cost by accident type ⁽²⁶⁾

Accident Type	Cost
Fatality	\$2,435,134
Major Injury	\$483,667
Incapacitating Injury	\$245,815
Minor Injury	\$64,400
Non-incapacitating Evident Injury	\$46,328
Injury	\$59,898
Possible or Unknown injury	\$23,837
Property Damage	\$6,142

In our analysis, we use the unit accident costs reported by the FHWA ⁽²⁵⁾ (see Table A5). In order to align the cost estimates based on the accident types available in NJDOT accident database, we regroup accident types in FHWA ⁽²⁵⁾ into fatality, injury (incapacitating) and property damage accidents. The accident cost functions are based on unit accident cost for each accident type. The accident cost functions used in this study were first developed by Ozbay *et al.* ⁽¹¹⁾, and later improved by Ozbay *et al.* ^(27, 16) with a new accident database. The statistical results of the estimation of accident occurrence rate functions can be found in Ozbay *et al.* ⁽¹⁶⁾.

Environmental Costs

Environmental costs due to highway transportation are categorized as air pollution and noise pollution costs.

Air Pollution Costs

Highway transportation accounts for the air pollution due to the release of pollutants during motor vehicle operations. This occurs either through the direct emission of the pollutants from the vehicles, or the resulting chemical reactions of the emitted pollutants with each other and/or with the existent materials in the atmosphere. The pollutants included in estimating air pollution costs in this study are volatile organic compounds (VOC), carbon monoxide (CO), nitrogen oxide (NO_x), and particulate matters (PM₁₀).

Estimating the costs attributable to highway air pollution is not a straightforward task, since there are no reliable methods to precisely identify and quantify the origins of the existing air pollution levels. The constraints for estimating the costs attributable to air pollution are listed as follows:

- Air pollution can be *local*, *trans-boundary* or *global*. As the range of its influence broadens, the cost generated increases, and after a certain point the full cost impact becomes difficult to estimate.
- Air pollution effects are typically chronic in nature. Namely, unless the pollution level is at toxic levels, the damage imposed on human health, agricultural products and materials may be detectable only after years of exposure.

Even if the influence of specific sources of air pollution could be isolated with precision, quantifying the contribution of highway transportation requires several assumptions. Emission rates depend on multiple factors, such as topographical and climatic conditions of the region, vehicle properties, vehicle speed, acceleration and deceleration, fuel type, *etc.* The widely used estimation model is available in US MOBILE software, which requires, as inputs, the above listed factors. Based on the input values, the program estimates emissions of each pollutant. However, the accuracy of this specific model and the other current models is, as noted, imprecise (see Small, *et*

al. ⁽²⁸⁾). Cost values attributable to differing levels of air pollution require a detailed investigation and an evaluation of people's preferences and their willingness to pay in order to mitigate or avoid these adverse effects.

There is extensive literature that attempts to measure the costs of air pollution (e.g., Small ⁽²⁹⁾, Small and Kazimi et al. ⁽²⁸⁾, Mayeres et al. ⁽¹⁹⁾). There are three ways of estimating the costs of air pollution: *Direct estimation of damages*, *hedonic price measurement* (relates price changes, demand, and air quality levels) and *preference of policymakers* (pollution costs are inferred from the costs of meeting pollution regulations), (Small and Kazimi ⁽²⁸⁾).

Small and Kazimi ⁽²⁸⁾ adopt the direct estimation of damages method to measure the unit costs of each pollutant. The study differentiates the resulting damages in three categories: *mortality from particulates*, *morbidity from particulates* and *morbidity from ozone*. It is assumed that human health costs are the dominant portion of costs due to air pollution rather than the damage to agriculture or materials. *Particulate Matter* (PM10) which is both directly emitted and indirectly generated by the chemical reaction of VOC, NO_x, and SO_x, is assumed to be the major cause of health damage costs. Ozone (O₃) formation is attributed to the chemical reaction between VOC and NO_x. In this study, we adopt the unit cost values suggested by Small and Kazimi ⁽²⁸⁾.

Noise Costs

The external costs of noise are most commonly estimated as the rate of depreciation in the value of residential units located at various distances from highways. Presumably, the closer a house to the highway the more the disamenity of noise will be capitalized in the value of that house. While there are many other factors that are also capitalized in housing values, "closeness" is most often utilized as the major variable explaining the effect of noise levels. The Noise Depreciation Sensitivity Index (*NDSI*) as given in Nelson ⁽³⁰⁾ is defined as the ratio of the percentage reduction in housing value due to a unit change in the noise level. Nelson ⁽³⁰⁾ suggests the value of 0.40% for *NDSI*.

The noise cost function indicates that whenever the ambient noise level at a certain distance from the highway exceeds 50 decibels, it causes a reduction in home values of

houses. Thus, the change in total noise cost depends both on the noise level and on the house value. Detailed information is presented in Ozbay *et al.* ⁽¹¹⁾.

Maintenance Costs

Infrastructure costs include all long-term expenditures, such as facility construction, material, labor, administration, right of way costs, regular maintenance expenditures for keeping the facility in a state of good repair, and occasional capital expenditures for traffic-flow improvement. Network properties represent the physical capabilities of the constructed highway facility, which include the number of lanes, lane width, pavement durability, intersections, ramps, overpasses, and so forth.

Maintenance and improvement constitute the only cost category that remains in our marginal infrastructure cost function. We attempt to express the maintenance cost in terms of input and output. Input in this context includes all components of maintenance work, such as equipment usage, earthwork, grading, material, and labor. Output implies the traffic volume on the roadway. The data employed include completed or ongoing resurfacing works between 2004 and 2006 in New Jersey.

P factor represents the time period (in years) between two consecutive resurfacing improvement works. *ESAL* converts the axle loads of various magnitudes and repetitions to an equivalent number of “standard” or “equivalent” loads based on the amount of damage they do the pavement. Truck factor changes with respect to different road types. Values for various road types are provided in Table A7.

Table A7 – Truck factor values

Road Type	Area Type	
	Rural	Urban
Interstate	0.52	0.39
Freeway	-	0.23
Principal	0.38	0.21
Minor Arterial	0.21	0.07
Major Collector	0.3	0.24
Minor Collector	0.12	

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL REEVALUATION

Route & Sec.:	US 30 & US 130, Section 1	Fed. Project. No.: MG 0016 (148)
Local Rd. Name:	Crescent Boulevard	NJDOT Job No.: 0404506
Municipalities:	Borough of Collingswood, City of Camden, Township of Pennsauken	County: Camden
Environmental Document Type & Approval Date: CED, approved 1/12/09		
Section 4(f): <ul style="list-style-type: none"> • <i>De minimis</i> Evaluation of Impacts for Historic Site (Harleigh Cemetery); approved for use by FHWA on 3/24/08, concurrence obtained from SHPO on 12/23/08 • Nationwide Section 4(f) Programmatic Evaluation for Historic Bridges (Rt. 30/130 Bridge over Cooper River); approved by FHWA on 1/12/09 • Nationwide Section 4(f) Programmatic Evaluation for minor involvement with publicly owned park (Cooper River Park); approved by FHWA on 1/12/09 		NJDOT Project Manager: Mike Kaskebar
Date of Previous Reevaluation: N/A		Type of Authorization Requested: Design ER

A. Changes to the project since approval of the environmental document:

Has there been a change in:	No	Yes	Has there been a change in:	No	Yes
1. Design / Scope		Yes	2. Right-of-Way		Yes
a. Project Limits		No	3. Public Opinion		No
b. Roadway Work		No	4. Regulations, Rules, Laws		No
c. Structure Work		Yes	5. Land Use		Yes
d. Pavement Width		No	6. Section 4(f)		No
e. Alignment		No	7. Other (Permits, Section 106, etc.)		Yes
f. Drainage Type		No			
g. Access		No			
h. Other Project Features		No			

Describe any items checked "Yes" above and comment on current public reaction.

Structure Work:

Page 6 of the CED states that “roadway improvements will widen the roadway (Routes 30/130) and additional pilings will be placed in the Cooper River in order to support the new bridge structure.” However, the current design calls for a single span bridge and the removal of the existing pilings that are associated with the bridge pier. The new structure will have pilings; however, they will be associated with the bridge abutments and will not be within the limits of the channel during normal flow.

Additionally, in order to maintain the recreational connectivity of the park during bridge construction, a 220-foot temporary pedestrian bridge will be constructed 110 feet east of the centerline of the Route 30/130 roadway. It will include temporary walls to limit the span length while keeping the abutments outside the limits of the river during normal flow. The low chord will be set to be at least as high as the low chord of the proposed bridge.

Right-of-way:

The total area needed has changed to 4.8 acres. The estimated number of parcels in fee has changed to 22, and easements have changed to 17 (this includes three temporary easements). The area of public recreation land taken has changed to 0.803 acre.

The aerial line along the Route 30/130 southbound roadway will be eliminated to minimize the impacts to Section 4(f), Section 6(f), and Green Acres encumbered properties at Cooper River Park and Harleigh Cemetery. The aerial lines for the electric, telephone and cable TV will be replaced with underground conduits along the Route 30/130 northbound roadway within the proposed NJDOT right-of-way.

A new drainage easement will be established within Cooper River Park at the northwest quadrant of the Cooper River Bridge in order to accommodate a proposed stormwater facility. At the request of the NJDEP Green Acres Program, another drainage easement will be established at an existing, orphaned drainage structure proposed for replacement that crosses Cooper River Park, at the southeast quadrant of the Cooper River Bridge crossing. A sight triangle easement will also be established within Cooper River Park at the southeast corner of the intersection of South Park Drive and Route 30/130.

Land Use:

The proposed project is partially located on land identified on local land use documents as open space. The proposed project supports this use by providing the public with safe routes and access to all areas of Cooper River Park. Although Section 6(f) (0.322 acre) and Green Acres (0.803 acre) encumbered parklands at Cooper River Park will be acquired by the NJDOT, no change in access will occur. Additionally, it is proposed that the NJDOT’s right-of-way taking in the park be offset by the addition of a replacement parcel to the park property. This replacement parcel is currently privately owned and consists of a 1.622-acre portion of Block 6401, Lot 3 in Pennsauken Township, NJ. The NJDOT plans to purchase this property and convey ownership to the Camden County Parks Department. This replacement parkland would then be placed under Green Acres and Section 6(f) encumbrances. This change in land use will not result in a negative impact to land use/ownership patterns and will result in a benefit to community livability.

Other (Permits, Section 106, etc):

Replacement Parkland

Pursuant to the compensation requirements for major disposals of New Jersey Green Acres encumbered parkland and conversions of parkland encumbered by Section 6(f) of the Federal Land and Water Conservation (LWCF) Act, the NJDOT is proposing to purchase a 1.622-acre parcel of replacement land (Parcel No. M112B), and transfer ownership to the Camden County Parks Department. The replacement parcel consists of a 1.622 acre portion of Block 6401, Lot 3 in Pennsauken Township, NJ. The replacement parcel would function as an extension of the existing Cooper River Park area and be placed under Green Acres and LWCF encumbrances. No facilities or other improvements are proposed at the replacement parcel.

A Preliminary Assessment report on Parcel MR112B was prepared according to NJDEP Technical Requirements for Site Remediation, N.J.A.C. 7:26E. No visual or physical evidence of hazardous substances or wastes, underground tanks or structures, or improperly sealed, abandoned wells were observed during the site reconnaissance. Additionally, there are no NJDEP records (OPRA Request and NJDEP On-Line resources) on any history of contamination/hazardous materials and remediation. While two potential AOCs were identified, none required further investigation.

Soils/Geology

The CED indicates that the soils within the project area are mapped as “Howell-Urban Land association”; however, updated soils mapping on the Natural Resource Conservation Service (NRCS) Web Soil Survey indicates that the entire project area, including the Green Acres/Section 6(f) replacement parcel, is underlain by Urban Land soils. The underlying geologic stratigraphy consists of the Merchantville Formation, which is underlain by the Magothy Formation, both of which are documented as being acid-producing upon exposure to air when excavated. Regardless of this change in mapping, areas to be excavated during the proposed project’s construction will be evaluated for the presence of acid-producing deposits, and where encountered, will be addressed with mitigation standards as outlined by the NJDEP Division of Water Resources.

Wetlands

The wetlands delineation conducted in April 2006, which is cited in the CED, was found to be erroneous due to a misinterpretation of the Urban Land soils at the park. A second delineation was conducted in July 2009; however, due to the location of the proposed improvements, this delineation did not result in any change to wetland impact acreage.

Threatened and Endangered Species

A request for more up to date information on State listed T&E species at the Cooper River Bridge crossing was requested from the NJDEP Natural Heritage Program (NHP). The response to this request, dated April 12, 2010 (See Attached), did not identify any additional T&E species. Furthermore, a request for information on State listed T&E species at the proposed replacement parkland (Block 6401, Lot 3 in Pennsauken, NJ) was also submitted to the NHP. Their response, dated February 16, 2010 (See Attached), did not identify any additional State listed T&E species. Given this response, and the fact that no improvements are proposed at the replacement parcel, no impacts to State listed T&E species are expected to occur at the replacement parcel as a result of the proposed project.

Recreational Resources

During construction, the use of the existing northbound sidewalks across the Cooper River Bridge will be prohibited due to construction staging and safety reasons. In order to mitigate this recreational impact, a temporary, handicap and bicycle accessible bridge will be constructed to the east of the existing bridge on the Section 6(f) parklands.

Floodplains

Part C of the CED states that the NJDEP regulated Flood Hazard Area at the Cooper River Bridge is at an approximate elevation of 13.0 feet. This elevation has been further analyzed and determined to be 14.1 feet.

Section 106

The proposed replacement parcel (Block 6401/Lot 3) was not within the original Area of Potential Effects that was analyzed at the time the Categorical Exclusion Document was prepared and finalized. As a result, additional consultation with the New Jersey Historic Preservation Office (NJHPO) was conducted pursuant to Section 106 of the National Historic Preservation Act in order to determine whether any potential historic properties are located on the site.

The replacement parcel is vacant and no extant architectural resources are located on the property. There are no known archaeological sites on or near the replacement parcel. On February 19, 2010, the NJSHPO concurred that there are no known significant historic resources located on the replacement parcel (See Attached). As a result, no effects to historic properties are expected.

Public Reaction:

A scoping hearing was held on January 7, 2010 in order to solicit comment from the public on the proposed disposal of Green Acres encumbered parkland at Cooper River Park. No comments in opposition to the proposed disposal were provided during the scoping hearing, or during a subsequent 15 day comment period. Public opinion remains favorable.

B. Environmental Documentation: (Indicate response with a yes, no or N/A)

1.	NEPA document still valid without additional documentation.	No
2.	NEPA document still valid, supplemental documentation completed.	Yes
3.	New NEPA document required.	No
4.	Project subject to Army Corps of Engineers Nationwide Permit # 23. FHWA concurrence with this reevaluation required.	No
5.	Project complies with E.O. 11988 Floodplain. (For construction only)	Yes
6.	Project complies with E.O. 11990 Wetlands. (For construction only)	Yes

Comments:

C. FHWA Consultation:

Consultation required if any items in Table A are marked YES unless project still meets a Certified CED definition. Use in determining need for FHWA concurrence of Environmental Reevaluation

Kostas Svarnas

6/1/10

FHWA person consulted:

Date

D. FHWA Concurrence of Environmental Reevaluation is required because

(Yes No)

Items 2, 3, or 4 in Part B were checked YES

Yes

Consultation in Part C requires it

Yes

On the basis of this reevaluation, there are no significant changes in the proposed project's scope, right of way, affected environment or anticipated impacts since approval of the environmental document.

E. Submitted for Approval:

Darless

Project Manager, Division of Project Management

6/2/10

Date

Jo An Asadpour

Environmental Team Leader, Office of Environmental Solutions

6/1/10

Date

F. Approved by:

[Signature]
Manager, Bureau of Landscape Architecture & Environmental Solutions

6.1.10

Date

G. Concurrence:
Not required for certified CED's

Nunzi Mark
for Division Administrator, Federal Highway Administration

6/10/10

Date



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Parks and Forestry
Office of Natural Lands Management
Natural Heritage Program
P.O. Box 404
Trenton, NJ 08625-0404
Tel. #609-984-1339
Fax. #609-984-1427

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

February 16, 2010

Matt Schlitzer
Dewberry-Goodkind, Inc.
600 Parsippany Road, Suite 301
Parsippany, NJ 07054

Re: Route 30/130 Collingswood/Pennsauken (Phase B)

Dear Mr. Schlitzer:

Thank you for your data request regarding rare species information for the above referenced project site in Pennsauken Township, Camden County.

Searches of the Natural Heritage Database and the Landscape Project (Version 3 for the highlands region, Version 2.1 elsewhere) are based on a representation of the boundaries of your project site in our Geographic Information System (GIS). We make every effort to accurately transfer your project bounds from the topographic map(s) submitted with the Request for Data into our Geographic Information System. We do not typically verify that your project bounds are accurate, or check them against other sources.

We have checked the Natural Heritage Database and the Landscape Project habitat mapping for occurrences of any rare wildlife species or wildlife habitat on the referenced site. Please see Table 1 for species list and conservation status.

Table 1 (on referenced site).

Table with 6 columns: Common Name, Scientific Name, Federal Status, State Status, Grank, Srank. Rows include eastern box turtle and great blue heron.

Neither the Natural Heritage Database nor the Landscape Project has records for any additional rare wildlife species or wildlife habitat within 1/4 mile of the referenced site.

We have also checked the Natural Heritage Database for occurrences of rare plant species or ecological communities. The Natural Heritage Database does not have any records for rare plants or ecological communities on or within 1/4 mile of the site.

A list of rare plant species and ecological communities that have been documented from Camden County can be downloaded from http://www.state.nj.us/dep/parksandforests/natural/heritage/countylist.html. If suitable habitat is present at the project site, the species in that list have potential to be present.

Status and rank codes used in the tables and lists are defined in EXPLANATION OF CODES USED IN NATURAL HERITAGE REPORTS, which can be downloaded from http://www.state.nj.us/dep/parksandforests/natural/heritage/nhpcodes_2008.pdf.

If you have questions concerning the wildlife records or wildlife species mentioned in this response, we recommend that you visit the interactive I-Map-NJ website at the following URL, http://www.state.nj.us/dep/gis/depsplash.htm or contact the Division of Fish and Wildlife, Endangered and Nongame Species Program at (609) 292 9400.

PLEASE SEE 'CAUTIONS AND RESTRICTIONS ON NHP DATA', which can be downloaded from http://www.state.nj.us/dep/parksandforests/natural/heritage/newcaution2008.pdf.

Thank you for consulting the Natural Heritage Program. The attached invoice details the payment due for processing this data request. Feel free to contact us again regarding any future data requests.

Sincerely,

Herbert A. Lord

Herbert A. Lord
Data Request Specialist

cc: Robert J. Cartica
NHP File No. 10-3907581-4308



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Parks and Forestry
Office of Natural Lands Management
Natural Heritage Program
P.O. Box 404
Trenton, NJ 08625-0404
Tel. #609-984-1339
Fax. #609-984-1427

BOB MANNING
Commissioner

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

April 12, 2010

Matt Schlitzer
Dewberry-Goodkind, Inc.
600 Parsippany Road, 3rd Floor
Parsippany, NJ 07054

Re: Route 30/130 Collingswood/Pennsauken (Phase B)

Dear Mr. Schlitzer:

Thank you for your data request regarding rare species information for the above referenced project site in Camden City, Pennsauken Township and Collingswood Borough, Camden County.

Searches of the Natural Heritage Database and the Landscape Project (Version 3 in the highlands region, Version 2.1 elsewhere) are based on a representation of the boundaries of your project site in our Geographic Information System (GIS). We make every effort to accurately transfer your project bounds from the topographic map(s) submitted with the Request for Data into our Geographic Information System. We do not typically verify that your project bounds are accurate or check them against other sources.

We have checked the Natural Heritage Database and the Landscape Project habitat mapping for occurrences of any rare wildlife species or wildlife habitat on the referenced site. Please see Table 1 for species list and conservation status.

Table 1 (on referenced site).

Common Name	Scientific Name	Federal Status	State Status	Grank	Srank
eastern box turtle	<i>Terrapene carolina carolina</i>		SC	G5T5	S3
great blue heron	<i>Ardea herodias</i>		SC/S	G5	S3B,S4N

We have also checked the Natural Heritage Database and the Landscape Project habitat mapping for occurrences of any rare wildlife species or wildlife habitat within one mile of the referenced site. Please see Table 2 for species list and conservation status. This table excludes any species listed in Table 1.

Table 2 (additional species within one mile of referenced site).

Common Name	Scientific Name	Federal Status	State Status	Grank	Srank
bald eagle foraging	<i>Haliaeetus leucocephalus</i>		E	G4	S1B,S1N

We have also checked the Natural Heritage Database for occurrences of rare plant species or ecological communities. The Natural Heritage Database does not have any records for rare plants or ecological communities on the site or for rare plant species covered by the Flood Hazard Area Control Act rule within one mile of the site.

A list of rare plant species and ecological communities that have been documented from Camden County can be downloaded from <http://www.state.nj.us/dep/parksandforests/natural/heritage/countylist.html>. If suitable habitat is present at the project site, the species in that list have potential to be present.

Status and rank codes used in the tables and lists are defined in EXPLANATION OF CODES USED IN NATURAL HERITAGE REPORTS, which can be downloaded from http://www.state.nj.us/dep/parksandforests/natural/heritage/nhp_codes_2008.pdf.

If you have questions concerning the wildlife records or wildlife species mentioned in this response, we recommend that you visit the interactive I-Map-NJ website at the following URL, <http://www.state.nj.us/dep/gis/depsplash.htm> or contact the Division of Fish and Wildlife, Endangered and Nongame Species Program at (609) 292 9400.

PLEASE SEE 'CAUTIONS AND RESTRICTIONS ON NHP DATA', which can be downloaded from
<http://www.state.nj.us/dep/parksandforests/natural/heritage/newcaution2008.pdf>.

Thank you for consulting the Natural Heritage Program. The attached invoice details the payment due for processing this data request. Feel free to contact us again regarding any future data requests.

Sincerely,

Herbert A. Lord

Herbert A. Lord
Data Request Specialist

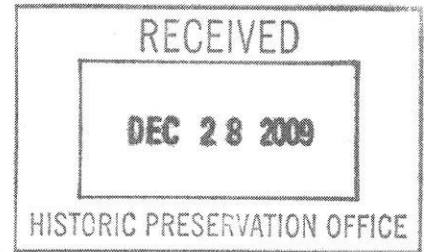
cc: Robert J. Cartica
NHP File No. 10-3907581-4680

(by Patricia Sziber)



State of New Jersey

DEPARTMENT OF TRANSPORTATION
P.O. Box 600
TRENTON, NJ 08625-0600



JON S. CORZINE
Governor

STEPHEN DILTS
Commissioner

December 18, 2009

Mr. Daniel D. Saunders
Acting Administrator and Deputy State Historic Preservation Officer
Department of Environmental Protection
Historic Preservation Office
P.O. Box 404
Trenton, NJ 08625

17, 18
03-0776-116-118
HPO-132010-166

Attn: Jonathan Kinney
Transportation and Planning Group

RE: Rt. 30/130 Collingswood/Pennsauken (Phase B)
City of Camden, Borough of Collingswood, Township of Pennsauken
Camden County
Federal Project No.: MG 0016 (148)
HPO-J2008-156; Log No. 03-0776-8&9
Green Acres/Section 6(f)

Dear Mr. Saunders:

The New Jersey Department of Transportation (NJDOT) has been coordinating with Caren Fishman, Director of Camden County Parks, in finding suitable property for Green Acres and Section 6(f) mitigation for the above-referenced. The Camden County Parks Department is interested in obtaining a portion of Block 6401, Lot 3, located in Pennsauken Township. The NJDEP Green Acres Program supports this land acquisition. A copy of the Pennsauken Township tax map with the property highlighted is enclosed for your reference. A second parcel map is enclosed, which shows the proposed subdivision line. Camden County Parks Department is only interested in Parcel 112A.

Block 6401, Lot 3, was not within the original Area of Potential Effects and was screened for the presence of significant historic properties and/or archeological resources.

Architecture:

There are no structures on the property. The land is vacant.

Archeology:

There are no known archeological sites on or near Block 6401, Lot 3 that are listed on the NJ and National Registers of Historic Places for Pennsauken Township (copy of list enclosed).

The NJDOT seeks your concurrence that there are no known significant historic resources located on Block 6401, Lot 3, in the Township of Pennsauken. A concurrence line has been provided below for your use.

If you have any questions, please contact me at (609) 530-3021 or Amber Cheney at (609) 530-5266.

Sincerely,



Jo Ann Asadpour
Supervising Environmental Specialist
Division of Capital Program Support
Bureau of Landscape Architecture and Environmental Solutions

AC:ac
enclosures

cc (w/o encl.): Mike Kaskebar, PM/CPM
Bruce Hawkinson, Section Chief/BLAES
Janet Fittipaldi, Manager/BLAES
CAREN Fishman, Camden County PARKS

I concur that there are no known significant historic resources located on Block 6401, Lot 3, in the Township of Pennsauken.

I do not concur for the following reason(s):



Daniel Saunders
Acting Administrator and Deputy State Historic Preservation Officer

2/19/2010

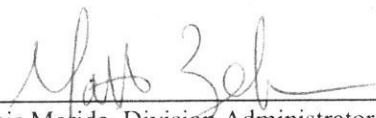
Date

Replacement of Route 30/130 Bridge over the Cooper River
(Structure No. 0405-153)
City of Camden, Township of Pennsauken
Camden County

**Nationwide Programmatic Section 4(f) Evaluation
For Minor Involvements with Public Parks**

Submitted Pursuant to
Department of Transportation Act of 1968
49 U.S.C. 303,
and Section 18(a) of Federal Aid Highway Act of 1968,
23 U.S.C. 138

Prepared by:
U.S. Department of Transportation
Federal Highway Administration
and
New Jersey Department of Transportation


for _____
Dennis Merida, Division Administrator, Federal Highway Administration

1/12/09
Date of Approval

TABLE OF CONTENTS

Programmatic Section 4(f) Evaluation for Use of a Public Park
Replacement of Route 30/130 Bridge over the Cooper River
Structure No. 0405-153
City of Camden, Township of Pennsauken
Camden County

	<u>Page</u>
I. Introduction	1
II. Project Purpose and Need	1
III. Description of Proposed Action	2
IV. Description of Section 4(f) Property	2
V. Impacts to Section 4(f) Property	3
VI. Applicability	3
VII. Alternatives	5
VIII. Measures to Minimize Harm	6
IX. Coordination	7
X. Conclusions	7

Appendices

USGS Camden Quadrangle
Response from the Director of Camden County Parks

Programmatic Section 4(f) Evaluation for Minor Involvements with Public Parks

Route 30/130 Collingswood/Pennsauken (Phase B)

City of Camden, Borough of Collingswood, Township of Pennsauken

Camden County

I. Introduction:

The New Jersey Department of Transportation (NJDOT), using Federal Funds, is proposing the complete replacement of the Route 30/130 Bridge over the Cooper River (Structure No. 0405-153), located in the City of Camden and Township of Pennsauken, Camden County. The proposed project is Phase B of the Collingswood Circle Elimination Project; Phase A is currently under construction. Project limits for Phase B begin along Route 30/130 just north of the Port Authority Transit Corporation Bridge in Collingswood and extend north to North Park Drive in Pennsauken. Improvements involve the resurfacing of Route 30/130 within the project limits, improving a number of roadway deficiencies (e.g., stopping sight distance, cross slopes/superelevation, minimum radius, shoulder width, and intersection sight distance), replacing the Haddon Avenue Bridge superstructure (Structure No. 0405-152), and replacing the Route 30/130 Bridge over the Cooper River with a *wider* structure (Structure No. 0405-153).

The Route 30/130 Bridge over the Cooper River is a concrete encased steel bridge, built in 1926, and reconstructed in 1947. Currently, the deck is in serious condition, while the superstructure and substructure are in fair and poor condition, respectively. The bridge is surrounded by Section 4(f) properties on all four (4) quadrants. A copy of the Camden USGS Quadrangle with the project area highlighted is enclosed for your reference.

This documentation was prepared to demonstrate and provide a written analysis that the project meets the applicability criteria for a Nationwide Programmatic Section 4(f) Evaluation, approved by the FHWA and that no Individual Section 4(f) Evaluation is needed for this project. The Categorical Exclusion Document will be submitted subsequent to this Section 4(f) documentation as a CE # 771.117(d)(1) for modernization of a highway, and (3) for bridge replacement.

II. Project Purpose and Need

The purpose of the proposed project is to accommodate traffic load and improve the safety and operational conditions along Route 30/130 within the project limits, which begin along Route 30/130 just north of the Port Authority Transit Corporation Bridge in Collingswood and extend north to North Park Drive in Pennsauken.

The Route 30/130 Bridge over the Cooper River is classified as structurally deficient and scour critical. The concrete encased steel bridge was built in 1926 and reconstructed in 1947. Currently, the deck is in serious condition, while the superstructure and substructure are in fair and poor condition, respectively. The overall condition of the bridge warrants replacement in order to assure public safety.

III. Description of Proposed Action

The Preferred Alternative involves improvements designed to correct substandard geometric roadway features, such as sight distance, vertical clearance, and superelevation. The Haddon Avenue Bridge (Structure No. 0405-152) will be rehabilitated and the Route 30/130 Bridge over the Cooper River (Structure No. 0405-153), which is surrounded by Section 4(f) property, will be replaced on its existing alignment with a single-span bridge consisting of multiple longitudinal steel stringers composite with a reinforced concrete deck slab.

The superstructure of the bridge will be supported by reinforced concrete abutments founded on pile supported foundations. The bridge will also be widened from two (2) to three (3) lanes from Haddon Avenue to just north of the Route 30/130 Bridge over the Cooper River. Widening will provide for two through-lanes and an auxiliary lane in either direction of divided two-way traffic, and sidewalks along both fascias. The Preferred Alternative is both feasible and prudent and meets the project's purpose and need, which is to accommodate traffic load and improve the safety and operational conditions along Route 30/130 in the project area.

Please see Section VII for alternatives studied that avoid any use of the public park; these alternatives were dismissed due to not being feasible and prudent, as well as not meeting the project's purpose and need.

IV. Description of Section 4(f) Property

1. Cooper River Park

Cooper River Park (346.55 acres) is a linear park that extends along both banks of the Cooper River and is located in the Townships of Pennsauken, Cherry Hill, and Haddon and the Borough of Collingswood. The park is bounded by North and South Park Drives, Route 130 and Grove Street. The park provides various recreational facilities such as walking trails, pavilions, picnic tables, boat ramps, a boat house, a miniature golf course, landscaping and various memorial monuments. Replacing the Route 30/130 Bridge over the Cooper River with a wider structure to accommodate traffic load and improve safety necessitates strip takings from the Cooper River Park. In addition, an existing drainage pipe is to be replaced as part of the proposed project, which was installed in an unknown year, before drainage easements were required.

2. Route 30/130 Bridge over the Cooper River

The Route 30/130 Bridge of the Cooper River, built in 1926, and reconstructed in 1947, is a concrete encased steel bridge in need of complete replacement due to it being structurally deficient, as well as scour critical. The 1994 Statewide Historic Bridge Survey recommends the bridge as not individually eligible for the National Register. A 12/06/94 letter from the SHPO states that although not individually eligible, the Route 30/130 Bridge over the Cooper River is a contributing resource to the Cooper River Park HD due to it being an integral feature of the park's circulation plan and one (of two bridges) that was built within the general period of the park's conception and realization

3. Harleigh Cemetery

The Harleigh Cemetery, located on the southwest quadrant of the bridge crossing, is a historic site eligible for the National Register (SHPO opinion: 6/15/95). A strip taking of the property is required for the proposed improvements. Impacts to the Harleigh Cemetery are covered under a

de minimis Evaluation of Impacts, which was approved by the FHWA on 3/27/08; all applicability criteria have been met and impacts to the Cemetery resulted in a No Adverse Effect under Section 106. The NJDOT informed the State Historic Preservation Officer FHWA's intention to use the *de minimis* Evaluation of Impacts in a letter dated March 26, 2008.

V. Impacts to Section 4(f) Property

The proposed project involves the demolition of the Route 30/130 Bridge over the Cooper River and replacement with a wider structure to accommodate the addition of a third lane in the north- and south-bound directions (currently two (2) lanes in either direction over the bridge). A shoulder will also be added in the southbound direction (currently a shoulder exists in the northbound direction).

In order to widen the bridge, property is required from Cooper River Park, a publicly owned park; therefore, the proposed project constitutes a Section 4(f) impact due to demolition and replacement of the bridge.

A separate Programmatic Section 4(f) Evaluation for Use of a Historic Bridge has been prepared to address impacts to the Route 30/130 Bridge over the Cooper River, a contributing element to the Cooper River Park Historic District, and is being submitted concurrently with this Programmatic Section 4(f) document, which addresses impacts to the Cooper River Park. As noted above, impacts to the Harleigh Cemetery are covered under the *de minimis* Evaluation of Impacts.

VI. Applicability

This programmatic Section 4(f) evaluation may be applied by the FHWA to the proposed project because the project meets the following seven (7) required criteria:

1. The proposed project is designed to improve the operational characteristics, safety and/or physical condition of existing highway facilities on essentially the same alignment.

The proposed project is designed to improve the operational characteristics, safety and physical conditions along Route 30/130 within the project limits while keeping the roadway on essentially the same alignment.

2. The Section 4(f) lands are publicly-owned public parks, recreation lands, or wildlife and waterfowl refuges located adjacent to the existing highway.

Cooper River Park is a publicly-owned public park located adjacent to the Route 30/130 Bridge over the Cooper River in the City of Camden and Township of Pennsauken; the park is located on three (3) of the bridge quadrants.

3. The amount and location of the land to be used shall not impair the use of the remaining Section 4(f) land, in whole or part, for its intended purpose.

The amount and location of land from the Cooper River Park to be used for the proposed project shall not impair the use of the remaining Section 4(f) parkland, in whole or part, for its intended

purpose. Cooper River Park is a linear park that extends along both banks of the Cooper River and is approximately 346.55 acres. The project as proposed requires the right-of-way taking of approximately 0.89 acre from the park, which is significantly less than the 1 percent maximum (i.e., 3.46 acres) allowable under this applicability criterion.

4. The proximity impacts of the proposed project on the remaining Section 4(f) land shall not impair the use of such land for its intended purpose.

The proximity impacts of the proposed project on the remaining Section 4(f) parkland shall not impair the use of the parkland for its intended purpose. Public access to the park will not be altered and the park will remain open during construction. To the maximum extent practicable, construction will not impede activities at the park, such as rowing events, boating or public concerts. It is anticipated that the proposed project will not cause any long-term adverse impacts to the existing park environment or disrupt the use of the park for its intended purpose.

5. The officials having jurisdiction over the Section 4(f) lands must agree, in writing, with the assessment of the impacts of the proposed project on, and the proposed mitigation for the Section 4(f) lands.

The Camden County Parks Department, the officials having jurisdiction over Cooper River Park—the Section 4(f) resource—have agreed, in writing, with the assessment of the impacts of the proposed project on, and the proposed mitigation for the Section 4(f) lands. Documentation from Caren Fishman, the Director of the Camden County Parks Department, is enclosed for your reference.

6. For projects using land from a site purchased or improved with funds under the Land and Water Conservation Fund Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Act, or similar laws, or the lands are otherwise encumbered with a Federal interest (e.g. former Federal Surplus property), coordination with the appropriate Federal Agency is required to ascertain the agency's position on the land conversion or transfer. The Programmatic Section 4(f) Evaluation does not apply if the agency objects to the land conversion or transfer.

Cooper River Park has utilized funds provided by the National Park Service's Land and Water Conservation Fund (LWCF). Coordination with the NJ Department of Environmental Protection's (NJDEP) Green Acres Program has been ongoing and will continue until the Green Acres process is complete. Since NJ's contact for the LWCF as shown at http://www.nps.gov/ncrc/programs/lwcf/contact_list.html is NJDEP's Green Acres Program, coordination with LWCF to ascertain their position on the land conversion/transfer will occur via the Green Acres process. Contacted Rob Rodriguez of the Green Acres Program on 11/3/08 and he confirmed that we'll deal with LWCF through his office via the Green Acres Process.

7. This programmatic evaluation does not apply to projects for which an Environmental Impact Statement (EIS) is prepared.

An EIS was not prepared for the proposed project. The project has been classified as a Categorical Exclusion # 771.117(d)(1) for modernization of a highway, and (3) for bridge replacement.

VII. Alternatives

1. No-build

Although the No-Build alternative does not affect any Section 4(f) lands, this option does not improve the existing condition along Route 30/130 within the project limits or address the safety issue regarding the structurally deficient Route 30/130 Bridge over the Cooper River. Routine maintenance is not adequate to address the bridge's deficiencies, nor does it address other project needs, including improvement of existing substandard roadway geometric deficiencies, increased traffic volume demands on the roadway and structure, and improvement of traffic safety conditions. The proposed bridge structure and approach roadway improvements are designed to incorporate improved safety features as an integral part of the new design. In addition, the No-Build Alternative is not recommended for further consideration because it ignores the basic transportation need, which is to replace the existing bridge with a new, wider structure to accommodate traffic, and to improve safety and operational conditions along Route 30/130 in the project area. The No-build Alternative, therefore, is not feasible and prudent, nor does it meet the project's purpose and need.

2. Improve the highway without using the adjacent public park

The project proposes operational and safety improvements along Route 30/130 within the project limits, as well as the widening of the Route 30/130 Bridge over the Cooper River. Since Section 4(f) property exists on all four quadrants of the bridge crossing and a wider structure is warranted for safety and capacity needs, it is not possible to shift the bridge in any other direction while avoiding Section 4(f) property. The Cooper River Park is located in NW, NE and SE quadrants and Harleigh Cemetery (covered under the *de minimis* Evaluation of Impacts) in the SW quadrant; therefore, improving the highway and replacing the bridge without using the adjacent public park is not a feasible and prudent alternative, nor does it meet the project's purpose and need.

3. Build an improved facility without using the adjacent public park

This project is an operational and safety improvement project, requiring the widening of the Route 30/130 Bridge over Cooper River. As noted in #2 above, Section 4(f) property exists in all four (4) quadrants of the bridge crossing. Therefore, shifting the alignment of the roadway and bridge to the east or west will still impact Section 4(f) property. The preferred alternative is to replace the bridge with a wider structure on the existing alignment, which results in the *least impacts* to Section 4(f) property. Therefore, building an improved facility without using the adjacent public park is not feasible or prudent, nor does it meet the project's purpose and need.

VIII. Measures to Minimize Harm

In order to minimize impacts to Cooper River Park, the following environmental commitments will be included in the project environmental plans and specification.

- All park properties within the project area, other than the parcel being acquired, shall be shown on plans as no access and shall be fenced off with heavy duty orange fencing during construction.

- Any landscaped areas that have been disrupted during construction will be re-seeded upon completion of the project to restore the aesthetic qualities of this area of the park.
- The NJDEP will be compensated with replacement parcels as agreed upon by the Green Acres Program.
- In order to minimize impacts to the surrounding area, current standard soil erosion and sedimentation control measures will be included in the project plans and specifications.
- All erosion and sediment control measures shall be left in place until construction is completed or the area is stabilized.
- Standard construction noise control measures will be incorporated into the project's plans and specifications.
- All permit conditions will be included in the project plans and specifications.

In addition, the NJDOT has been consulting with the SHPO since March of 1995 on ways to minimize and mitigate impacts to Section 4(f) properties within the project area. NJDOT developed a Memorandum of Agreement (MOA) that was reviewed and approved for circulation by FHWA on 10/9/08. The following stipulations are included in the MOA:

- **Aesthetics:** The new bridge will be designed to include an aesthetic parapet that will emulate the look of the existing (e.g., Texas type railing), tinted concrete for the bridge abutments and wingwalls, and other design features to complement the above-ground features of the Cooper River Park Historic District, where appropriate; lighting installed over the Route 30/130 Bridge over the Cooper River will consist of powder-coated black tear-drop lights, as used in Phase A of the referenced project.
- **Pennsylvania Mica Staircases:** The two (non-contributing) Pennsylvania mica staircases located south of South Park Drive and at the bridge's southeast quadrant, which will be removed, will be carefully disassembled; salvaged materials will be reused in the repair/reconstruction of the debilitated (contributing) Pennsylvania mica staircase located at the northeast quadrant of the bridge crossing.
- **Signage:** An interpretative sign concerning the history of the Cooper River Park Historic District will be developed in consultation with the SHPO, and placed at the Northeast Quadrant of the bridge crossing on NJDOT right-of-way, at an appropriate location at the top of the staircase.
- **National Register Nomination:** A draft final National Register nomination will be prepared for the Cooper River Park Historic District (HD), a resource which is eligible for listing on the National Register (SHPO Opinion: 2/28/94). The HD was determined to be eligible under Criterion A in the areas of community planning and development and entertainment and recreation as an example of an early-twentieth-century park. Under Criterion C, the HD is eligible for its landscape

architecture that embodies the design concepts heralded by the Olmstead Brothers at the turn of the century and for its embodiment of the work of a master, Charles W. Leavitt and Son, one of the most prominent early-twentieth-century landscape architecture firms in the United States. The HD qualifies for listing in the Register because it incorporates scenic overlooks, docks, footbridges, footpaths, and staircases into its design. Important aspects of integrity include setting, design, location, and materials.

- Archeological Monitoring Program: An archeological monitoring program has been developed and is attached for reference (see Attachment A); the program was approved by SHPO on 9/17/08.

IX. Coordination:

Pursuant to Section 4(f), the NJDOT has coordinated with SHPO, the ACHP, and interested/consulting parties as called for in CRF Part 800. Coordination among SHPO, FHWA, and NJDOT has resulted in agreement that the Route 30/130 Bridge over the Cooper River and the staircase located on the northeastern quadrant of the bridge crossing are contributing features to the Cooper River Park HD, and that the proposed project will result in an adverse effect to the HD due to the demolition and alternation of these resources.

Coordination included discussion of avoidance alternatives, impacts to the property and measures to minimize harm. A Public Information Center (PIC) was held in Pennsauken Township, Camden County, on 11/17/03. The PIC revealed little opposition to the proposed project. Another PIC will be held in the near future.

Coordination with NJDEP Green Acres Program is ongoing. Also, as noted in VI.6 above, coordination with the National Park Service's Land and Water Conservation Fund will occur during the Green Acres Process.

X. Conclusion:

As noted in the introduction, the objective of the Section 4(f) document is to show that the proposed project complies with Section 4(f) of the 1966 USDOT Act by meeting the following conditions:

- The documentation was prepared to demonstrate and provide a written analysis that the project meets the applicability criteria for a Nationwide Programmatic Section 4(f) Evaluation, approved by the FHWA and that no Individual Section 4(f) Evaluation is needed for this project.
- The Categorical Exclusion Document will be submitted subsequent to this Section 4(f) documentation as a CE # 771.117(d)(1) for modernization of a highway, and (3) for bridge replacement.

Given the information presented in this Section 4(f) document, it is concluded that the proposed project meets the above-noted conditions, and thereby complies with Section 4(f) of the 1966 USDOT Act. Furthermore, based on the above considerations, there is no feasible and prudent alternative to the use of land from the Cooper River Park, and the proposed action includes all possible planning to minimize harm to the bridge resulting from such use.



State of New Jersey

DEPARTMENT OF TRANSPORTATION
P.O.Box 600
Trenton, New Jersey 08625-0600

JON S. CORZINE
Governor

KRIS KOLLURI, Esq.
Commissioner

October 29, 2008

Caren Fishman
Director, Camden County Parks Department
1301 Park Boulevard
Cherry Hill, NJ 08002-3752

RE: Rt. 30/130 Collingswood/Pennsauken (Phase B)
Borough of Collingswood, Township of Pennsauken, City of Camden
Camden County
Programmatic Section 4(f) for Impacts to Cooper River Park

Dear Ms. Fishman:

The New Jersey Department of Transportation (NJDOT) and Federal Highway Administration are proposing to construct Phase B of the Collingswood Circle Elimination Project. Project limits for Phase B begin along Route 30/130 just north of the Port Authority Transit Corporation Bridge in Collingswood and extend north to North Park Drive in Pennsauken. Improvements involve the resurfacing of Route 30/130 within the project limits, improving a number of roadway deficiencies (e.g., stopping sight distance, cross slopes/superelevation, minimum radius, shoulder width, and intersection sight distance), replacing the Haddon Avenue Bridge superstructure (Structure No. 0405-152), and replacing the Route 30/130 Bridge over the Cooper River with a *wider* structure (Structure No. 0405-153). Please see enclosed conceptual plan showing the proposed improvements.

Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. 303), which was enacted in 1966, requires that transportation projects avoid the taking of publicly-owned recreation land or historic sites unless it has been demonstrated that there are no prudent and feasible alternatives and all steps are taken to minimize adverse impacts to these properties. As you are aware, the Cooper River Park is located on the Northwest, Northeast, and Southeast Quadrants of the Route 30/130 Bridge over the Cooper River. Because the project involves widening the structure in order to accommodate traffic load and improve safety, impacts to the Section 4(f) resource are unavoidable.

A Programmatic Section 4(f) document can be prepared for projects using minor amounts of publicly-owned parks, recreational lands or refuges if the official(s) having jurisdiction over the property are in agreement with the proposed project, assessment of impacts, and the proposed mitigation. If these criteria are not met, an Individual Section 4(f) document, which must be circulated to the public and review agencies for comment.

As noted above, the NJDOT intends to purchase 0.89 acre of the park. As mitigation, the NJDOT intends to purchase replacement land of comparable value and function. The NJDOT has been coordination with your office via the Green Acres process and will continue to do so until a Resolution of Support is signed which will address impacts to the park and proposed mitigation.

In addition to replacement land, the NJDOT intends to reconstruct the staircase located on the northeast quadrant of the bridge crossing, as well as to improve the walking path on the southeast quadrant of the bridge crossing. Both the staircase and walking path provide connectivity from one side of the park to the other. Landscaping within the impact areas will also be provided.

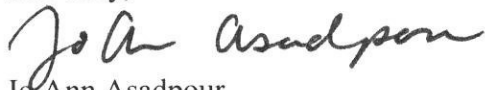
In summary, the NJDOT is asking that you concur with the following conditions set forth in the Programmatic Section 4(f) Applicability Criteria:

- ♦ The amount of land and location of the land to be used shall not impair the use of the remaining Section 4(f) land, in whole or in part, for its intended purpose.
- ♦ The proximity impacts of the project on the remaining Section 4(f) land shall not impair the use of such land for its intended purpose.
- ♦ You agree with the assessment of the impacts of the proposed projects on, and the proposed mitigation for, the Section 4(f) land.

Please respond to this letter by **November 14, 2008** as to whether you concur with the taking of parkland as proposed. If you have any questions or need additional information, please contact me at (609) 530-3021 or Amber Cheney at (609) 530-5266.

Thank you.

Sincerely,



Jo Ann Asadpour
Supervising Environmental Specialist
Division of Capital Program Support
Bureau of Landscape Architecture & Environmental Solutions
P.O. Box 600
Trenton, NJ 08625

AC:ac
enclosures

cc (w/o encl.): Mike Kaskebar, Project Manager
Janet Fittpaldi, Manager/BLAES

 I concur with the proposed improvements, which will require acquisition of approximately 0.89 acre of Cooper River Park to accommodate a wider bridge structure. The taking of 0.89 acre from the park will not impair the use of the remaining parkland, in whole or in part, for its intended purpose. In addition, the proximity impacts of the proposed project on the remaining parkland will not impair the use of such land for its intended purpose. The Camden County Parks Department will be provided replacement land of comparable value and function. In addition to replacement land, the NJDOT intends to reconstruct the staircase located on the northeast quadrant of the bridge crossing, as well as to improve the walking path on the southeast quadrant of the bridge crossing. Both the staircase and walking path provide connectivity from one side of the park to the other. Landscaping within the impact areas will also be provided.

 I do not concur for the following reasons:

Sarah (Suzanne)
Property Owner
Camden County Parks Department

12/22/08
Date

Table of Contents

Programmatic Section 4(f) Evaluation for use of a Historic Bridge
Replacement of Route 30/130 Bridge over the Cooper River
Structure No. 0405-153
City of Camden, Borough of Collingswood, Township of Pennsauken
Camden County

	<u>Page</u>
I. Introduction	1
II. Project Purpose and Need	2
III. Description of Proposed Action	2
IV. Description of Section 4(f) Property	2
V. Impacts to Section 4(f) property	3
VI. Applicability	3
VII. Alternatives Analysis	4
VIII. Measures to Minimize Harm	5
IX. Coordination	6
X. Conclusions	6

Appendix

USGS Camden Quadrangle

Programmatic Section 4(f) Evaluation for Use of a Historic Bridge

Route 30/130 Collingswood/Pennsauken (Phase B)

City of Camden, Borough of Collingswood, Township of Pennsauken

Camden County

I. Introduction

The New Jersey Department of Transportation (NJDOT), using Federal Funds, is proposing the complete replacement of the Route 30/130 Bridge over the Cooper River (Structure No. 0405-153), located in the City of Camden and Township of Pennsauken, Camden County. The proposed project is Phase B of the Collingswood Circle Elimination Project; Phase A is currently under construction. Project limits for Phase B begin along Route 30/130 just north of the Port Authority Transit Corporation Bridge in Collingswood and extend north to North Park Drive in Pennsauken. Improvements involve the resurfacing of Route 30/130 within the project limits, improving a number of roadway deficiencies (e.g., stopping sight distance, cross slopes/superelevation, minimum radius, shoulder width, and intersection sight distance), replacing the Haddon Avenue Bridge superstructure (Structure No. 0405-152), and replacing the Route 30/130 Bridge over the Cooper River with a *wider* structure (Structure No. 0405-153).

The Route 30/130 Bridge over the Cooper River is a concrete encased steel bridge, built in 1926, and reconstructed in 1947. Currently, the deck is in serious condition, while the superstructure and substructure are in fair and poor condition, respectively. The bridge is surrounded by Section 4(f) properties on all four (4) quadrants. A copy of the Camden USGS Quadrangle with the project area highlighted is enclosed for your reference.

This Section 4(f) document was prepared to address the use of the historic bridge, which is a contributing resource to the Cooper River Park Historic District. The Cooper River Park Historic District eligible for the National Registers of Historic Places (State Historic Preservation Officer (SHPO) Opinion: 02/16/00). Coordination with the SHPO during the Section 106 process resulted in the finding that the proposed project will result in an adverse affect to the Cooper River Park Historic District due to the demolition and replacement of the bridge. The project is, therefore, subject to Section 4(f) of the U.S. Department of Transportation Act of 1966 (Programmatic Section 4(f) for the contributing bridge).

This documentation has been prepared to demonstrate the following:

- There are no feasible and prudent alternatives to the use of the Route 30/130 Bridge over the Cooper River.
- Project includes all possible planning to minimize harm resulting from the use of the Route 30/130 Bridge over the Cooper River.
- That the project meets the applicability criteria for the programmatic Section 4(f) evaluation for projects that necessitate the use of historic bridges, which was issued by the FHWA.

II. Project Purpose and Need

The purpose of the proposed project is to accommodate traffic load and improve the safety and operational conditions along Route 30/130 within the project limits, which begin along Route 30/130 just north of the Port Authority Transit Corporation Bridge in Collingswood and extend north to North Park Drive in Pennsauken.

The Route 30/130 Bridge over the Cooper River is classified as structurally deficient and scour critical. The concrete encased steel bridge was built in 1926 and reconstructed in 1947. Currently, the deck is in serious condition, while the superstructure and substructure are in fair and poor condition, respectively. The overall condition of the bridge warrants replacement in order to assure public safety.

III. Description of Proposed Action

The Preferred Alternative involves improvements designed to correct substandard geometric roadway features, such as sight distance, vertical clearance, and superelevation. The Haddon Avenue Bridge (Structure No. 0405-152) will be rehabilitated and the Route 30/130 Bridge over the Cooper River (Structure No. 0405-153), which is a historic bridge surrounded by additional Section 4(f) properties, will be replaced on its existing alignment with a single-span bridge consisting of multiple longitudinal steel stringers composite with a reinforced concrete deck slab.

The superstructure of the bridge will be supported by reinforced concrete abutments founded on pile supported foundations. The bridge will also be widened from two (2) to three (3) lanes from Haddon Avenue to just north of the Route 30/130 Bridge over the Cooper River. Widening will provide for two through-lanes and an auxiliary lane in either direction of divided two-way traffic, and sidewalks along both fascias. The Preferred Alternative is both feasible and prudent and meets the project's purpose and need, which is to accommodate traffic load and improve the safety and operational conditions along Route 30/130 in the project area.

Please see Section VII for alternatives studied that avoid any use of the historic bridge; these alternatives were dismissed due to not being feasible and prudent, as well as not meeting the project's purpose and need.

IV. Description of Section 4(f) Property

1. Route 30/130 Bridge over the Cooper River

The Route 30/130 Bridge of the Cooper River, built in 1926, and reconstructed in 1947, is a concrete encased steel bridge in need of complete replacement due to it being structurally deficient, as well as scour critical. The 1994 Statewide Historic Bridge Survey recommends the bridge as not individually eligible for the National Register. A 12/06/94 letter from the SHPO states that although not individually eligible, the Route 30/130 Bridge over the Cooper River is a contributing resource to the Cooper River Park HD due to it being an integral feature of the park's circulation plan and one (of two bridges) that was built within the general period of the park's conception and realization.

2. Cooper River Park Historic District

The Cooper River Park Historic District (HD) is eligible for listing in the National Register on February 28, 1994 and again on February 16, 2000. The HD was determined eligible under Criterion A in the areas of community planning and development and entertainment and recreation as an example of an early-twentieth-century park. Under Criterion C, the HD is eligible for its landscape architecture that embodies the design concepts heralded by the Olmstead Brothers at the turn of the century and for its embodiment of the work of a master, Charles W. Leavitt and Son, one of the most prominent early-twentieth-century landscape architecture firms in the United States. The Cooper River Park HD qualifies for listing in the National Register because it incorporates scenic overlooks, docks, footbridges, footpaths, and staircases into its design. Important aspects of integrity include setting, design, location, and materials.

3. Harleigh Cemetery

The Harleigh Cemetery, located on the southwest quadrant of the bridge crossing, is a historic site eligible for the National Register (SHPO opinion: 6/15/95). A strip taking of the property is required for the proposed improvements. Impacts to the Harleigh Cemetery are covered under a *de minimis* Evaluation of Impacts, which was approved by the FHWA on 3/27/08; all applicability criteria have been met and impacts to the Cemetery resulted in a No Adverse Effect under Section 106. The NJDOT informed the State Historic Preservation Officer FHWA's intention to use the *de minimis* Evaluation of Impacts in a letter dated March 26, 2008.

V. Impacts to Section 4(f) Property

The proposed project involves the replacement of the Route 30/130 Bridge over the Cooper River on its existing alignment, which minimizes impacts to adjacent Section 4(f) resources. This alternative involves the demolition of the Route 30/130 Bridge over the Cooper River, and replacement with a wider structure to accommodate the addition of a third lane in the north- and south-bound directions (currently two (2) lanes in either direction over the bridge). A shoulder will also be added in the southbound direction (currently a shoulder exists in the northbound direction). The bridge has been identified as contributing element to the Cooper River Park Historic District; therefore, the proposed project constitutes a Section 4(f) impact due to demolition and replacement of the bridge.

A separate Programmatic Section 4(f) Evaluation for Use of a Public Park has been prepared to address impacts to the Cooper River Park, publicly-owned parkland, and is being submitted concurrently with this Programmatic Section 4(f) document, which addresses the removal of the Route 30/130 Bridge over the Cooper River. As noted above, impacts to the Harleigh Cemetery are covered under the *de minimis* Evaluation of Impacts.

VI. Applicability

This programmatic Section 4(f) evaluation may be applied by the FHWA to the proposed project because the project meets the following five (5) required criteria:

1. The bridge is to be replaced or rehabilitated with Federal funds.

The proposed project is a bridge replacement and is being federally funded. The federal project number is MG-0016 (148).

2. The project will require the use of a historic bridge structure, which is on or is eligible for listing on the National Register of Historic Places.

The Route 30/130 Bridge over the Cooper River is a contributing resource to the Cooper River Park Historic District (SHPO Opinion: 12/06/94). The bridge has been determined by SHPO to be a contributing element of the Historic District and is, therefore, eligible for listing on the National Register.

3. The bridge is not a National Historic Landmark.

Structure No. 0405-153 is not a National Landmark.

4. The FHWA Division Administrator determines that the facts of the project match those set forth in the sections of this document labeled Alternatives, Findings, and Mitigation.

The facts of the proposed project have been set forth in the Sections of this document in order for the FHWA Division Administration to determine that this programmatic Section 4(f) is applicable.

5. Agreement among the FHWA, the State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP) has been reached through procedures pursuant to Section 106 of the National Historic Preservation Act.

Procedures have been followed and an agreement has been reached with the FHWA and the SHPO regarding the eligibility of the bridge. The ACHP was notified during Phase A of the project and declined to participate.

VII. Alternatives Analysis

In addition to the attached Alternative Analysis copied from the Feasibility Report prepared by Dewberry-Goodkind, Inc. (June 2006), the following list of alternatives were developed and evaluated:

1. No-build

Although the No-Build alternative does not affect any Section 4(f) lands, this option does not improve the existing condition along Route 30/130 within the project limits or address the safety issue regarding the structurally deficient Route 30/130 Bridge over the Cooper River. Routine maintenance is not adequate to address the bridge's deficiencies, nor does it address other project needs, including improvement of existing substandard roadway geometric deficiencies, increased traffic volume demands on the roadway and structure, and improvement of traffic safety conditions. The proposed bridge structure and approach roadway improvements are designed to incorporate improved safety features as an integral part of the new design. In addition, the No-Build Alternative is not recommended for further consideration because it ignores the basic transportation need, which is to replace the existing bridge with a new, wider structure to accommodate traffic, and to improve safety and operational conditions along Route 30/130 in the project area. The No-build Alternative, therefore, is not feasible and prudent, nor does it meet the project's purpose and need.

2. Build on new location without using the old bridge

It is not feasible to construct a bridge parallel to the old bridge (allowing for a one-way couplet) without affecting the historic integrity of the old bridge. To utilize the existing structure and build an adjacent couplet bridge of similar style, the problem of substandard roadway geometric features and operational problems in the project area would not be resolved. In addition, the existing bridge would still require rehabilitation, which is not possible for reasons noted in #3 below.

Even though a new bridge will be built at a new location, the existing bridge will not be preserved because it is beyond rehabilitation for reasons noted in #3 below. In addition, as per Section 123(f) of the Surface Transportation and Uniform Relocation Assistance Act of 1987, potential interested parties were informed that the structure was available for relocation and transfer of ownership. However, no responsible party could be located to maintain and preserve the existing bridge. Building on a new location without using the old bridge, therefore, is not a feasible and prudent alternative, nor does it meet the project's purpose and need.

3. Rehabilitation without affecting the historic integrity of the bridge

The existing bridge is so structurally deficient that it cannot be rehabilitated to meet minimum acceptable load requirements without impairing the historic integrity of the bridge. Although repairs to the superstructure could arrest some of the bridge's ongoing deterioration, the large/wide cracks in the substructure units indicates a structural or settlement problem with the underlying timber pile foundation. Underpinning, installation of micro-piles or complete replacement of the pile foundations would require a significant or complete reconstruction of the substructure units. Furthermore, to allow for access to the pile supported foundation the existing superstructure must be disassembled, rehabilitated, and reassembled in stages upon completion of the substructure modifications. Furthermore, this alternative does not allow for the creation of auxiliary traffic lanes. Such an invasive rehabilitation/reconstruction would be cost prohibitive, impractical and, as a result, only a fraction of the structure will be original. Rehabilitating the bridge, therefore, is not a feasible and prudent alternative, nor does it meet the project's purpose and need.

VIII. Measures to Minimize Harm

NJDOT has been consulting with the SHPO since March of 1995 on ways to minimize and mitigate impacts to Section 4(f) properties within the project area. NJDOT developed a Memorandum of Agreement (MOA) that was reviewed and approved for circulation by FHWA on 10/9/08.

The following stipulations are included in the MOA:

1. Aesthetics: The new bridge will be designed to include an aesthetic parapet that will emulate the look of the existing (e.g., Texas type railing), tinted concrete for the bridge abutments and wingwalls, and other design features to complement the above-ground features of the Cooper River Park Historic District, where appropriate; lighting installed over the Route 30/130 Bridge over the Cooper River will consist of powder-coated black tear-drop lights, as used in Phase A of the referenced project.

2. Pennsylvania Mica Staircases: The two (non-contributing) Pennsylvania mica staircases located south of South Park Drive and at the bridge's southeast quadrant, which will be removed, will be carefully disassembled; salvaged materials will be reused in the repair/reconstruction of the debilitated (contributing) Pennsylvania mica staircase located at the northeast quadrant of the bridge crossing.
3. Signage: An interpretative sign concerning the history of the Cooper River Park Historic District will be developed in consultation with the SHPO, and placed at the Northeast Quadrant of the bridge crossing on NJDOT right-of-way, at an appropriate location at the top of the staircase.
4. National Register Nomination: A draft final National Register nomination will be prepared for the Cooper River Park Historic District (HD), a resource which is eligible for listing on the National Register (SHPO Opinion: 2/28/94). The HD was determined to be eligible under Criterion A in the areas of community planning and development and entertainment and recreation as an example of an early-twentieth-century park. Under Criterion C, the HD is eligible for its landscape architecture that embodies the design concepts heralded by the Olmstead Brothers at the turn of the century and for its embodiment of the work of a master, Charles W. Leavitt and Son, one of the most prominent early-twentieth-century landscape architecture firms in the United States. The HD qualifies for listing in the Register because it incorporates scenic overlooks, docks, footbridges, footpaths, and staircases into its design. Important aspects of integrity include setting, design, location, and materials.
5. Archeological Monitoring Program: An archeological monitoring program has been developed and is attached for reference (see Attachment A); the program was approved by SHPO on 9/17/08.

IX. Coordination

Pursuant to Section 4(f), the NJDOT has coordinated with SHPO, the ACHP, and interested/consulting parties as called for in CRF Part 800. Coordination among SHPO, FHWA, and NJDOT has resulted in agreement that the Route 30/130 Bridge over the Cooper River and the staircase located on the northeastern quadrant of the bridge crossing are contributing features to the Cooper River Park HD, and that the proposed project will result in an adverse effect to the HD due to the demolition and alternation of these resources.

Coordination included discussion of avoidance alternatives, impacts to the property and measures to minimize harm. A Public Information Center (PIC) was held in Pennsauken Township, Camden County, on 11/17/03. The PIC revealed little opposition to the proposed project. Another PIC will be held in the near future.

X. Conclusions

As noted in the introduction, the objective of the Section 4(f) document is to show that the proposed project complies with Section 4(f) of the 1966 USDOT Act by meeting the following conditions:

- There is no feasible and prudent alternative to the use of land from the Section 4(f) property; and

- The project includes all possible planning to minimize harm to the Section 4(f) property.

Given the information presented in this Section 4(f) document, it is concluded that the proposed project meets the above-noted conditions, and thereby complies with Section 4(f) of the 1966 USDOT Act. Furthermore, based on the above considerations, there is no feasible and prudent alternative to the use of land from the Rt. 30/130 Bridge over the Cooper River, and the proposed action includes all possible planning to minimize harm to the bridge resulting from such use.



Township of Pennsauken

CAMDEN COUNTY, NEW JERSEY

(856) 665-1000
FAX (856) 665-2749

INCORPORATED 1892

Rick Taylor
Mayor

Jack Killion
Deputy Mayor

Township Committee: Bill Orth Steve Petrillo Greg Schofield

Bob Cummings
Administrator

Pat Gudis
Township Clerk

David Luthman
Municipal Attorney

March 15, 2004

Ms. Patricia A. Feliciano
Deputy Director – Office of Community Relations
New Jersey Department of Transportation
P. O Box 600
Trenton, New Jersey 08625

RE: COLLINGSWOOD CIRCLE PROJECT – Phase B


Dear Ms. Feliciano:

Per your request, I am providing this letter of support for the Collingswood Circle Project, Phase B on behalf of the Township of Pennsauken. Although only a small section of the project from the Cooper River to North Park Drive is in Pennsauken, this stretch of Route 130 is in dire need of traffic improvement, particularly at the North Park Drive intersection.

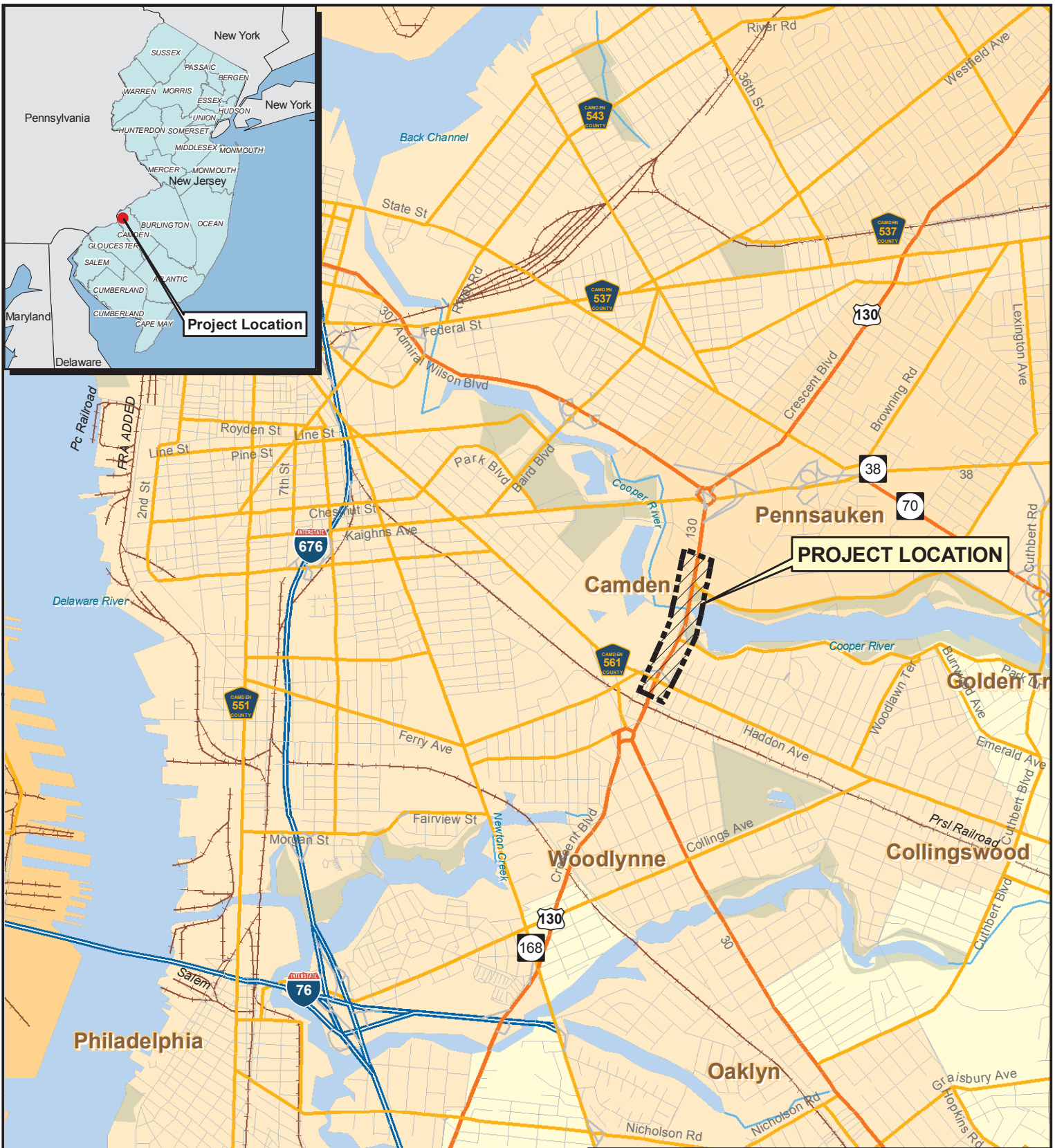
The Township therefore supports and appreciates any effort on the part of the NJDOT to improve traffic flow through this intersection. We are also in support of reconstruction of the Cooper River Bridge.

If I can be of assistance during the course of the project, please do not hesitate to contact me.

Sincerely,



Dennis O'Rourke, P.E.
Township Engineer



LEGEND:

 Project Area

0 3,000 6,000 Feet

Source: Streetmap USA, 2004.

ProjectWise:\500038900\GIS\Mxd\Tiger Site Location Map.mxd

NEW JERSEY DEPARTMENT OF TRANSPORTATION

**ROUTE 30/130 COLLINGSWOOD/PENNSAUKEN - PHASE B
CAMDEN COUNTY, NEW JERSEY**

PROJECT AREA LOCATION MAP

SCALE: AS INDICATED

DATE: August 2010

 **Dewberry**

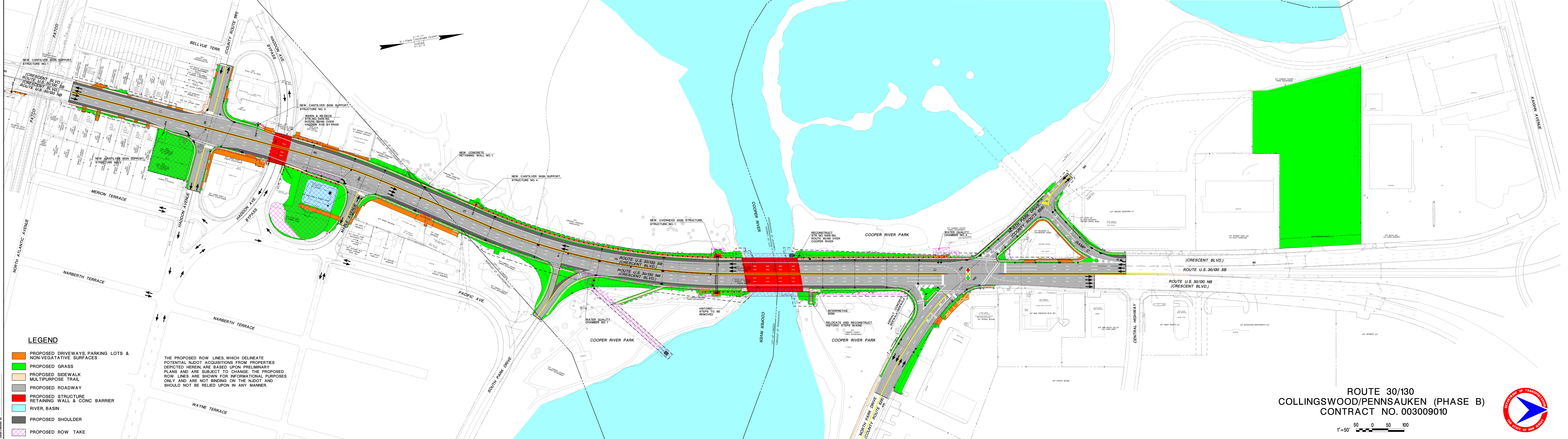
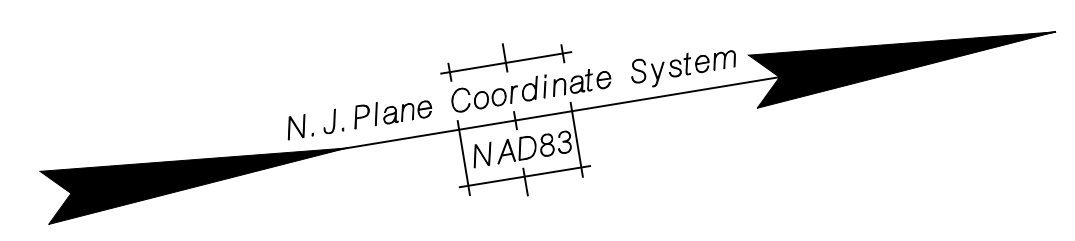
FIGURE 1

BOROUGH OF COLLINGSWOOD

CITY OF CAMDEN

COUNTY OF CAMDEN

TOWNSHIP OF PENNSAUKEN

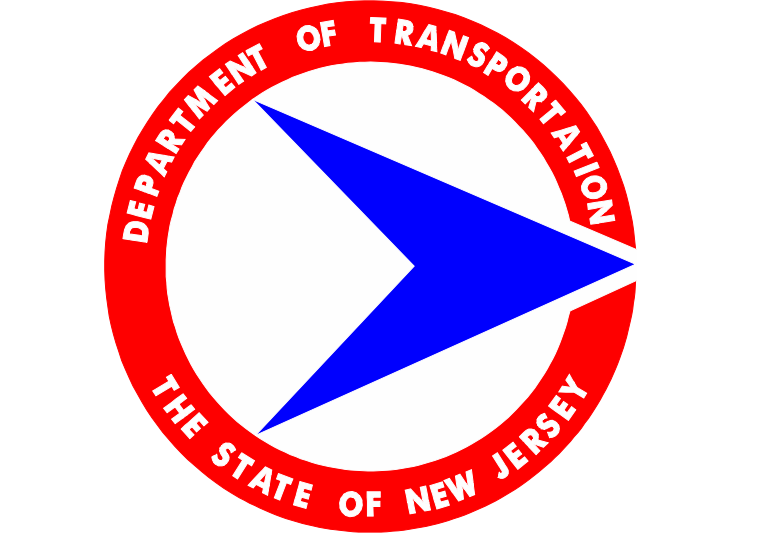


LEGEND

- PROPOSED DRIVEWAYS, PARKING LOTS & NON-VEGETATIVE SURFACES
- PROPOSED GRASS
- PROPOSED SIDEWALK MULTIPURPOSE TRAIL
- PROPOSED ROADWAY
- PROPOSED STRUCTURE RETAINING WALL & CONC BARRIER
- RIVER, BASIN
- PROPOSED SHOULDER
- PROPOSED ROW TAKE

THE PROPOSED ROW LINES, WHICH DELINEATE POTENTIAL NJDOT ACQUISITIONS FROM PROPERTIES DEPICTED HEREIN, ARE BASED UPON PRELIMINARY PLANS AND ARE SUBJECT TO CHANGE. THE PROPOSED ROW LINES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT BINDING ON THE NJDOT AND SHOULD NOT BE RELIED UPON IN ANY MANNER.

**ROUTE 30/130
COLLINGSWOOD/PENNSAUKEN (PHASE B)
CONTRACT NO. 003009010**



In Charge of Design by
 Designed by
 Drawn by
 Date Created by
 rccatell
 8/14/2009 11:30:09 AM pdf-C.plt 97438900CAD/Civil/Display/PC BOARD.dgn

Activity ID	Activity Name	Original Duration	Remaining Duration	Early Start	Early Finish	Predecessors	2011				2012				2013				2014				2015				2016
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Rt 30/130 Collingswood/Pennsauken - PD Submission		784	784	03-Feb-11	26-Feb-14																						
Milestones		784	784	03-Feb-11	26-Feb-14																						
M100	Advertisement Date	0	0	03-Feb-11			◆																				
M200	Bid Date	0	0	03-Mar-11		A100	◆																				
M300	Award Date	0	0	06-Apr-11		A200	◆																				
M500	Construction Start Date	0	0	05-May-11		A300	◆																				
M600	Stage 1 Phase A Complete	0	0		14-Jul-11	C1055, C1025	◆																				
M610	Stage 1 Phase B Complete	0	0		11-Aug-11	C1160, C1150	◆																				
M620	Stage 1 Phase C Complete	0	0		25-Aug-11	C1230	◆																				
M630	Stage 2 Phase A Complete	0	0		07-Nov-11	C2145, C2130	◆																				
M640	Stage 2 Phase B Complete	0	0		25-Apr-12	C2590, C2591, C2592	◆																				
M650	Stage 2 Phase C Complete	0	0		25-May-12	C2700	◆																				
M660	Stage 2 Phase D Complete	0	0		14-Jun-12	C2405, C2290, C2850	◆																				
M670	Stage 3 Complete	0	0		26-Oct-12	C3045, C3565, C3710	◆																				
M680	Stage 4 Phase A Complete	0	0		26-Apr-13	C4010, C4040, C4085, C4090, C4265, C4410	◆																				
M690	Stage 4 Phase B Complete	0	0		27-Sep-13	C4555, C4565, C4835, C4710	◆																				
M700	Stage 5 Phase A Complete	0	0		31-Oct-13	C5055, C5035, C5015, C5025	◆																				
M710	Stage 5 Phase B Complete	0	0		29-Nov-13	C5730	◆																				
M900	Substantial Completion	0	0		29-Nov-13	M710	◆																				
M950	Completion	0	0		26-Feb-14	F9000	◆																				
Construction		784	784	03-Feb-11	26-Feb-14																						
Administrative		64	64	03-Feb-11	04-May-11																						
A100	Timeframe between Advertisement and Bid	19	19	03-Feb-11	02-Mar-11	M100	■																				
A200	Timeframe Between Bid and Award	24	24	03-Mar-11	05-Apr-11	M200	■																				
A300	Timeframe Between Award and Construction	21	21	06-Apr-11	04-May-11	M300	■																				
Stage 1		80	80	05-May-11	25-Aug-11																						
Stage 1A		50	50	05-May-11	14-Jul-11																						
C1000	Mobilization	20	20	05-May-11	01-Jun-11	M500, PS100	■																				
C1005	Clearing Site	5	5	02-Jun-11	08-Jun-11	C1000	■																				
C1010	Maintenance of Traffic	2	2	09-Jun-11	10-Jun-11	C1005	■																				
C1015	Install Erosion Control Devices	5	5	09-Jun-11	15-Jun-11	C1005	■																				
C1030	Roadway Excavation	1	1	16-Jun-11	16-Jun-11	C1015, C1010	■																				
C1020	Temp Signal North Park Drive	20	20	16-Jun-11	14-Jul-11	C1015	■																				
C1025	Temp Signal South Park Drive	20	20	16-Jun-11	14-Jul-11	C1020	■																				
C1035	DGA, 6"	2	2	17-Jun-11	20-Jun-11	C1030	■																				
C1040	HMA Base Course	1	1	21-Jun-11	21-Jun-11	C1035	■																				
C1045	HMA Intermediate Course	1	1	21-Jun-11	21-Jun-11	C1040	■																				
C1050	HMA Surface Course	1	1	21-Jun-11	21-Jun-11	C1045	■																				
C1055	Temp Utility Poles	1	1	22-Jun-11	22-Jun-11	C1050	■																				
Stage 1B		20	20	15-Jul-11	11-Aug-11																						
C1100	Demolish Building	5	5	15-Jul-11	21-Jul-11	M600	■																				
C1125	ITS	5	5	15-Jul-11	21-Jul-11	C1100	■																				
C1105	Excavation for Basin	1	1	22-Jul-11	22-Jul-11	C1100, C1125	■																				
C1110	Inlet & Outlet less than 36"	1	1	25-Jul-11	25-Jul-11	C1105	■																				
C1130	Temp Sidewalk/Trail	1	1	25-Jul-11	25-Jul-11	C1105	■																				
C1140	Temp Sidewalk	2	2	26-Jul-11	27-Jul-11	C1130	■																				
C1115	Water Chamber #1	5	5	26-Jul-11	01-Aug-11	C1110	■																				
C1145	Temp Guide Rail	1	1	28-Jul-11	28-Jul-11	C1140	■																				
C1155	Temp Utility Pole	2	2	28-Jul-11	29-Jul-11	C1140	■																				
C1160	Foundation for Overhead Structure	5	5	01-Aug-11	05-Aug-11	C1155, C1140	■																				

START: 03-Feb-11	FINISH: 26-Feb-14		New Jersey Department of Transportation Route 30/130 Collingswood/Pennsauken (Phase B) Contract No. 003009010 PD CONSTRUCTION SCHEDULE	SHEET 1 OF 9
DATA: 03-Feb-11	RUN: 18-Feb-09			

Activity ID	Activity Name	Original Duration	Remaining Duration	Early Start	Early Finish	Predecessors	2011				2012				2013				2014				2015				2016
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
C1120	Outlet System	2	2	02-Aug-11	03-Aug-11	C1115																					
C1135	Water Chamber #2	5	5	04-Aug-11	10-Aug-11	C1120, C1130																					
C1150	Demolish Building	1	1	11-Aug-11	11-Aug-11	C1135, C1145																					
Stage 1C		10	10	12-Aug-11	25-Aug-11																						
C1200	Maintenance of Traffic	2	2	12-Aug-11	15-Aug-11	M610																					
C1205	Install Erosion Control Devices	1	1	16-Aug-11	16-Aug-11	C1200																					
C1210	Remove Median Barrier/Guide Rail	3	3	17-Aug-11	19-Aug-11	C1205																					
C1215	Haddon Ave Bridge - Remove Guide Rail	2	2	22-Aug-11	23-Aug-11	C1210																					
C1220	Cooper River Bridge - Remove Guide Rail	2	2	22-Aug-11	23-Aug-11	C1210																					
C1225	Reset Grates & Manholes	2	2	24-Aug-11	25-Aug-11	C1220																					
C1230	HMA Intermediate, 6"	2	2	24-Aug-11	25-Aug-11	C1225, C1220, C1215																					
Stage 2		206	206	26-Aug-11	14-Jun-12																						
Stage 2A		141	141	26-Aug-11	15-Mar-12																						
C2000	Maintenance of Traffic	3	3	26-Aug-11	30-Aug-11	M620																					
C2005	Install Erosion Control Devices	1	1	31-Aug-11	31-Aug-11	C2000																					
C2010	Roadway Excavation	1	1	01-Sep-11	01-Sep-11	C2005																					
C2015	Removal of Concrete	1	1	01-Sep-11	01-Sep-11	C2010																					
C2200	Haddon Ave Bridge - Demolish East Side Super	5	5	01-Sep-11	07-Sep-11	PS110, C2005																					
C2295	Cooper River Bridge - Demolish East Side Super	10	10	01-Sep-11	14-Sep-11	C2005, PS110																					
C2020	Drainage System & Temp Grates	5	5	02-Sep-11	08-Sep-11	C2015																					
C2025	Cantilever Structure at Sta 50+34	15	15	02-Sep-11	22-Sep-11	C2015																					
C2201	Haddon Ave Bridge - Demolish East Side South Abut	5	5	08-Sep-11	14-Sep-11	C2200																					
C2030	Relocate Underground Utilities	5	5	09-Sep-11	15-Sep-11	C2020																					
C2205	Haddon Ave Bridge - Foundation Ex South Abut	3	3	15-Sep-11	19-Sep-11	C2201																					
C2202	Haddon Ave Bridge - Demolish East Side North Abut	5	5	15-Sep-11	21-Sep-11	C2201																					
C2296	Cooper River Bridge - Demolish East Side South Abut	5	5	15-Sep-11	21-Sep-11	C2295																					
C2035	Rt 30/130 NB - Subbase	3	3	16-Sep-11	20-Sep-11	C2030																					
C2215	Haddon Ave Bridge - Footing South Abut	3	3	20-Sep-11	22-Sep-11	C2205																					
C2040	Rt 30/130 NB - DGA, 8"	3	3	21-Sep-11	23-Sep-11	C2035																					
C2210	Haddon Ave Bridge - Foundation Ex North Abut	3	3	22-Sep-11	26-Sep-11	C2205, C2202																					
C2297	Cooper River Bridge - Demolish East Side North Abut	5	5	22-Sep-11	28-Sep-11	C2296																					
C2300	Cooper River Bridge - Cofferdams South Abut	5	5	22-Sep-11	28-Sep-11	C2296																					
C2225	Haddon Ave Bridge - South Abut & Wingwall	6	6	23-Sep-11	30-Sep-11	C2215																					
C2045	Cantilever Structure at Sta 55+27	15	15	23-Sep-11	13-Oct-11	C2025																					
C2050	Rt 30/130 NB - HMA Base Course	1	1	26-Sep-11	26-Sep-11	C2040																					
C2055	Rt 30/130 NB - HMA Intermediate Course	1	1	27-Sep-11	27-Sep-11	C2050																					
C2220	Haddon Ave Bridge - Footing North Abut	3	3	27-Sep-11	29-Sep-11	C2210, C2215																					
C2060	Rt 30/130 NB - Milling 4" Thick	1	1	28-Sep-11	28-Sep-11	C2055																					
C2065	Rt 30/130 NB - HMA Driveway	1	1	29-Sep-11	29-Sep-11	C2060																					
C2298	Cooper River Bridge - Demolish East Side Pier	5	5	29-Sep-11	05-Oct-11	C2297																					
C2305	Cooper River Bridge - Piles South Abut	5	5	29-Sep-11	05-Oct-11	C2300																					
C2310	Cooper River Bridge - Cofferdams North Abut	5	5	29-Sep-11	05-Oct-11	C2300, C2297																					
C2070	Temp Pavement - DGA, 6"	1	1	30-Sep-11	30-Sep-11	C2065																					
C2235	Haddon Ave Bridge - Curing South Abut	5	5	01-Oct-11	05-Oct-11	C2225																					
C2075	Temp Pavement - HMA Base Course	1	1	03-Oct-11	03-Oct-11	C2070																					
C2080	Temp Pavement - HMA Intermediate Course	1	1	03-Oct-11	03-Oct-11	C2075																					
C2085	Temp Pavement - HMA Surface Course	1	1	03-Oct-11	03-Oct-11	C2080																					
C2230	Haddon Ave Bridge - North Abut & Wingwall	8	8	03-Oct-11	12-Oct-11	C2220, C2225																					
C2090	Haddon Ave - Milling 4" Thick	1	1	04-Oct-11	04-Oct-11	C2085																					
C2095	Haddon Ave - HMA Intermediate Course	1	1	04-Oct-11	04-Oct-11	C2090																					
C2100	Maple Ave - Roadway Excavation	1	1	05-Oct-11	05-Oct-11	C2095																					

START: 03-Feb-11 FINISH: 26-Feb-14
DATA: 03-Feb-11 RUN: 18-Feb-09

- █ Actual Work
- █ Remaining Work
- █ Critical Remaining Work
- ◆ Milestone

New Jersey Department of Transportation
Route 30/130 Collingswood/Pennsauken (Phase B)
Contract No. 003009010
PD CONSTRUCTION SCHEDULE

Activity ID	Activity Name	Original Duration	Remaining Duration	Early Start	Early Finish	Predecessors	2011				2012				2013				2014				2015				2016	
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
C2530	Temp Pavement - HMA Surface Course	1	1	08-Dec-11	08-Dec-11	C2526																						
C2535	Haddon Ave WB - Removal of Concrete	1	1	09-Dec-11	09-Dec-11	C2530																						
C2592	Temp Sidewalk	1	1	09-Dec-11	09-Dec-11	C2530																						
C2536	Haddon Ave WB - Relocate Underground Utilities	2	2	12-Dec-11	13-Dec-11	C2535																						
C2540	Haddon Ave WB - HMA Driveways	1	1	14-Dec-11	14-Dec-11	C2536																						
C2541	Haddon Ave WB - Concrete Vertical Curb	1	1	14-Dec-11	14-Dec-11	C2540																						
C2545	Haddon Ave WB - Milling 4" Thick	1	1	19-Mar-12	19-Mar-12	C2541																						
C2546	Haddon Ave WB - HMA Intermediate Course	1	1	19-Mar-12	19-Mar-12	C2545																						
C2547	South Park Dr - Roadway Excavation	1	1	20-Mar-12	20-Mar-12	C2546																						
C2550	South Park Dr - Subbase, 6"	1	1	21-Mar-12	21-Mar-12	C2547																						
C2551	South Park Dr - DGA, 6"	1	1	21-Mar-12	21-Mar-12	C2550																						
C2555	South Park Dr - Concrete Vertical Curb	2	2	22-Mar-12	23-Mar-12	C2551																						
C2556	South Park Dr - HMA Base Course	1	1	26-Mar-12	26-Mar-12	C2555																						
C2557	Ramp C - Roadway Excavation	1	1	27-Mar-12	27-Mar-12	C2556																						
C2560	Ramp C - Drainage System	3	3	28-Mar-12	30-Mar-12	C2557																						
C2561	Ramp C - Relocate Underground Utilities	1	1	02-Apr-12	02-Apr-12	C2560																						
C2565	Ramp C - Subbase	1	1	03-Apr-12	03-Apr-12	C2561																						
C2566	Ramp C - DGA, 6"	1	1	03-Apr-12	03-Apr-12	C2565																						
C2570	Ramp C - HMA Base Course	1	1	04-Apr-12	04-Apr-12	C2566																						
C2571	Ramp C - Milling 3" Thick	1	1	04-Apr-12	04-Apr-12	C2570																						
C2575	Ramp C - Concrete Vertical Curb	1	1	04-Apr-12	04-Apr-12	C2571																						
C2576	Ramp C - HMA Intermediate Course	1	1	05-Apr-12	05-Apr-12	C2575																						
C2577	North Park Dr - Roadway Excavation	1	1	06-Apr-12	06-Apr-12	C2576																						
C2580	North Park Dr - Subbase	1	1	06-Apr-12	06-Apr-12	C2577																						
C2581	North Park Dr - DGA, 6"	1	1	09-Apr-12	09-Apr-12	C2580																						
C2585	North Park Dr - HMA Base Course	1	1	10-Apr-12	10-Apr-12	C2581																						
C2586	North Park Dr - Concrete Vertical Curb	1	1	11-Apr-12	11-Apr-12	C2585																						
C2590	North Park Dr - HMA Intermediate Course	1	1	12-Apr-12	12-Apr-12	C2586																						
C2591	North Park Dr - Install Traffic Signal	10	10	12-Apr-12	25-Apr-12	C2590																						
Stage 2C		22	22	26-Apr-12	25-May-12																							
C2600	Maintenance of Traffic	1	1	26-Apr-12	26-Apr-12	M640																						
C2605	Install Erosion Control Devices	1	1	27-Apr-12	27-Apr-12	C2600																						
C2610	Rt 30/130 & N Park Dr - Roadway Excavation	1	1	30-Apr-12	30-Apr-12	C2605																						
C2615	Rt 30/130 & N Park Dr - Drainage System	2	2	01-May-12	02-May-12	C2610																						
C2620	Rt 30/130 & N Park Dr - Relocate Underground Utilities	1	1	02-May-12	02-May-12	C2615																						
C2625	Rt 30/130 & N Park Dr - Subbase	1	1	03-May-12	03-May-12	C2620																						
C2630	Rt 30/130 & N Park Dr - DGA, 6"	1	1	03-May-12	03-May-12	C2625																						
C2635	Rt 30/130 & N Park Dr - HMA Base Course	1	1	04-May-12	04-May-12	C2630																						
C2640	Rt 30/130 & N Park Dr - Concrete Vertical Curb	1	1	04-May-12	04-May-12	C2635																						
C2645	Rt 30/130 & N Park Dr - HMA Intermediate Course	1	1	07-May-12	07-May-12	C2640																						
C2650	Rt 30/130SB & N Park Dr & Ramp C - Roadway Excavation	1	1	07-May-12	07-May-12	C2645																						
C2655	Rt 30/130SB & N Park Dr & Ramp C - Drainage System	1	1	08-May-12	08-May-12	C2650																						
C2660	Rt 30/130SB & N Park Dr & Ramp C - Subbase	1	1	09-May-12	09-May-12	C2655																						
C2665	Rt 30/130SB & N Park Dr & Ramp C - DGA, 6"	1	1	10-May-12	10-May-12	C2660																						
C2670	Rt 30/130SB & N Park Dr & Ramp C - HMA Base Course	1	1	11-May-12	11-May-12	C2665																						
C2675	Rt 30/130SB & N Park Dr & Ramp C - Concrete Vertical Curb	2	2	14-May-12	15-May-12	C2670																						
C2680	Rt 30/130SB & N Park Dr & Ramp C - HMA Intermediate Course	1	1	16-May-12	16-May-12	C2675																						
C2685	Rt 30/130SB & N Park Dr & Ramp C - HMA Driveways	1	1	16-May-12	16-May-12	C2680																						
C2690	Rt 30/130SB & N Park Dr & Ramp C - Milling 3" Thick	1	1	16-May-12	16-May-12	C2685																						
C2695	Rt 30/130SB & N Park Dr & Ramp C - Concrete Sidewalk	2	2	17-May-12	18-May-12	C2690																						
C2700	Install Traffic Signal	5	5	21-May-12	25-May-12	PS120, C2695																						

START: 03-Feb-11 FINISH: 26-Feb-14
DATA: 03-Feb-11 RUN: 18-Feb-09

- Actual Work
- Remaining Work
- Critical Remaining Work
- Milestone

New Jersey Department of Transportation
Route 30/130 Collingswood/Pennsauken (Phase B)

Contract No. 003009010

PD CONSTRUCTION SCHEDULE

Activity ID	Activity Name	Original Duration	Remaining Duration	Early Start	Early Finish	Predecessors	2011				2012				2013				2014				2015				2016
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Stage 2D		14	14	28-May-12	14-Jun-12																						
C2800	Maintenance of Traffic	1	1	28-May-12	28-May-12	M650																					
C2805	Install Erosion Control Devices	1	1	29-May-12	29-May-12	C2800																					
C2810	Rt 30/130 & N Park Dr (EB & WB) - Roadway Excavation	1	1	30-May-12	30-May-12	C2805																					
C2815	Rt 30/130 & N Park Dr (EB & WB) - Drainage System	1	1	31-May-12	31-May-12	C2810																					
C2820	Rt 30/130 & N Park Dr (EB & WB) - Subbase	1	1	01-Jun-12	01-Jun-12	C2815																					
C2825	Rt 30/130 & N Park Dr (EB & WB) - DGA, 6"	1	1	04-Jun-12	04-Jun-12	C2820																					
C2830	Rt 30/130 & N Park Dr (EB & WB) - HMA Base Course	1	1	05-Jun-12	05-Jun-12	C2825																					
C2835	Rt 30/130 & N Park Dr (EB & WB) - Concrete Vertical Curb	1	1	06-Jun-12	06-Jun-12	C2830																					
C2840	Rt 30/130 & N Park Dr (EB & WB) - HMA Intermediate Course	1	1	07-Jun-12	07-Jun-12	C2835																					
C2845	Rt 30/130 & N Park Dr (EB & WB) - Concrete Sidewalk	1	1	07-Jun-12	07-Jun-12	C2840																					
C2850	Rt 30/130 & N Park Dr (EB & WB) - Install Traffic Signal	5	5	08-Jun-12	14-Jun-12	C2845																					
Stage 3		95	95	15-Jun-12	26-Oct-12																						
C3000	Maintenance of Traffic	2	2	15-Jun-12	18-Jun-12	M660																					
C3005	Install Erosion Control Devices	1	1	19-Jun-12	19-Jun-12	C3000																					
C3010	Removal of Concrete	1	1	20-Jun-12	20-Jun-12	C3005																					
C3500	Haddon Ave Bridge - Demolish Middle Super	5	5	20-Jun-12	26-Jun-12	C3005																					
C3600	Cooper River Bridge - Demolish Middle Super	10	10	20-Jun-12	03-Jul-12	C3005																					
C3015	Drainage System	2	2	21-Jun-12	22-Jun-12	C3010																					
C3020	Relocate Underground Utilities	1	1	22-Jun-12	22-Jun-12	C3015																					
C3025	Subbase	2	2	25-Jun-12	26-Jun-12	C3020																					
C3030	DGA, 8"	2	2	27-Jun-12	28-Jun-12	C3025																					
C3501	Haddon Ave Bridge - Demolish Middle South Abut	5	5	27-Jun-12	03-Jul-12	C3500																					
C3035	HMA Base Course	1	1	29-Jun-12	29-Jun-12	C3030																					
C3040	Milling 3" Thick & Varies	1	1	02-Jul-12	02-Jul-12	C3035																					
C3045	HMA Intermediate Course	2	2	02-Jul-12	03-Jul-12	C3040																					
C3502	Haddon Ave Bridge - Demolish Middle North Abut	5	5	05-Jul-12	11-Jul-12	C3501																					
C3505	Haddon Ave Bridge - South Abut Seat Modifications	5	5	05-Jul-12	11-Jul-12	C3501																					
C3601	Cooper River Bridge - Demolish Middle South Abut	5	5	05-Jul-12	11-Jul-12	C3600																					
C3510	Haddon Ave Bridge - Curing South Abut	5	5	12-Jul-12	16-Jul-12	C3505																					
C3515	Haddon Ave Bridge - North Abut Seat Modifications	5	5	12-Jul-12	18-Jul-12	C3505, C3502																					
C3602	Cooper River Bridge - Demolish Middle North Abut	5	5	12-Jul-12	18-Jul-12	C3601																					
C3605	Cooper River Bridge - Cofferdams South Abut	5	5	12-Jul-12	18-Jul-12	C3601																					
C3520	Haddon Ave Bridge - Curing North Abut	5	5	19-Jul-12	23-Jul-12	C3515																					
C3603	Cooper River Bridge - Demolish Middle Pier	5	5	19-Jul-12	25-Jul-12	C3602																					
C3610	Cooper River Bridge - Piles South Abut	5	5	19-Jul-12	25-Jul-12	C3605																					
C3635	Cooper River Bridge - Cofferdams North Abut	5	5	19-Jul-12	25-Jul-12	C3605																					
C3525	Haddon Ave Bridge - Deck Joints Middle	2	2	23-Jul-12	25-Jul-12	C3520, C3510																					
C3530	Haddon Ave Bridge - Deck Forms Middle	6	6	25-Jul-12	02-Aug-12	C3525																					
C3615	Cooper River Bridge - Tremie South Abut	2	2	26-Jul-12	27-Jul-12	C3610																					
C3640	Cooper River Bridge - Piles North Abut	5	5	26-Jul-12	01-Aug-12	C3610, C3635																					
C3620	Cooper River Bridge - Footing South Abut	3	3	30-Jul-12	01-Aug-12	C3615																					
C3645	Cooper River Bridge - Tremie North Abut	2	2	02-Aug-12	03-Aug-12	C3615, C3640																					
C3625	Cooper River Bridge - South Abut	6	6	02-Aug-12	09-Aug-12	C3620																					
C3535	Haddon Ave Bridge - Shear Conn Middle	1	1	02-Aug-12	03-Aug-12	C3530																					
C3540	Haddon Ave Bridge - Deck Slab Middle	2	2	03-Aug-12	07-Aug-12	C3535																					
C3650	Cooper River Bridge - Footing North Abut	3	3	06-Aug-12	08-Aug-12	C3620, C3645																					
C3545	Haddon Ave Bridge - Slab Curing Middle	5	5	08-Aug-12	12-Aug-12	C3540																					
C3630	Cooper River Bridge - Curing South Abut	5	5	10-Aug-12	14-Aug-12	C3625																					
C3655	Cooper River Bridge - North Abut	6	6	10-Aug-12	17-Aug-12	C3625, C3650																					
C3550	Haddon Ave Bridge - Median Barrier	2	2	13-Aug-12	14-Aug-12	C3545																					

START: 03-Feb-11	FINISH: 26-Feb-14		New Jersey Department of Transportation Route 30/130 Collingswood/Pennsauken (Phase B) Contract No. 003009010 PD CONSTRUCTION SCHEDULE	SHEET 5 OF 9
DATA: 03-Feb-11	RUN: 18-Feb-09			

Activity ID	Activity Name	Original Duration	Remaining Duration	Early Start	Early Finish	Predecessors	2011				2012				2013				2014				2015				2016
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
C3555	Haddon Ave Bridge - Median Barrier Curing	14	14	15-Aug-12	28-Aug-12	C3550																					
C3660	Cooper River Bridge - Curing North Abut	5	5	18-Aug-12	22-Aug-12	C3655																					
C3665	Cooper River Bridge - Framing Middle	3	3	22-Aug-12	27-Aug-12	C3630, C3660, C3603																					
C3670	Cooper River Bridge - Deck Joints Middle	2	2	27-Aug-12	29-Aug-12	C3665																					
C3565	Haddon Ave Bridge - Sawcut Deck Middle	1	1	28-Aug-12	29-Aug-12	C3555																					
C3675	Cooper River Bridge - Deck Forms Middle	15	15	29-Aug-12	19-Sep-12	C3670																					
C3680	Cooper River Bridge - Shear Conn Middle	3	3	19-Sep-12	24-Sep-12	C3675																					
C3685	Cooper River Bridge - Deck Slab Middle	5	5	24-Sep-12	01-Oct-12	C3680																					
C3690	Cooper River Bridge - Slab Curing Middle	5	5	02-Oct-12	06-Oct-12	C3685																					
C3695	Cooper River Bridge - Median Barrier	4	4	08-Oct-12	11-Oct-12	C3690																					
C3700	Cooper River Bridge - Median Barrier Curing	14	14	12-Oct-12	25-Oct-12	C3695																					
C3710	Cooper River Bridge - Sawcut Deck Middle	1	1	25-Oct-12	26-Oct-12	C3700																					
Stage 4		235	235	26-Oct-12	27-Sep-13																						
Stage 4A		126	126	26-Oct-12	26-Apr-13																						
C4000	Maintenance of Traffic	1	1	26-Oct-12	29-Oct-12	M670																					
C4005	Install Erosion Control Devices	1	1	29-Oct-12	30-Oct-12	C4000																					
C4015	Roadway Excavation	2	2	30-Oct-12	01-Nov-12	C4005																					
C4200	Haddon Ave Bridge - Demolish West Step 1 Super	8	8	30-Oct-12	09-Nov-12	C4005																					
C4300	Cooper River Bridge - Demolish West Step 1 Super	10	10	30-Oct-12	14-Nov-12	C4005																					
C4010	Install Utility Poles	60	60	31-Oct-12	29-Dec-12	C4005																					
C4020	Removal of Concrete	1	1	31-Oct-12	01-Nov-12	C4015																					
C4025	Drainage System	1	1	01-Nov-12	02-Nov-12	C4020																					
C4030	Relocate Underground Utilities	1	1	01-Nov-12	02-Nov-12	C4025																					
C4045	Subbase	6	6	02-Nov-12	13-Nov-12	C4030																					
C4035	Cantilever Structure at Sta 58+06	15	15	02-Nov-12	26-Nov-12	C4030																					
C4201	Haddon Ave Bridge - Demolish West Step 1 South Abut	8	8	09-Nov-12	22-Nov-12	C4200																					
C4050	DGA, 8"	6	6	13-Nov-12	21-Nov-12	C4045																					
C4301	Cooper River Bridge - Demolish West Step 1 South Abut	5	5	14-Nov-12	21-Nov-12	C4300																					
C4055	HMA Base Course	2	2	21-Nov-12	23-Nov-12	C4050																					
C4302	Cooper River Bridge - Demolish West Step 1 North Abut	5	5	21-Nov-12	28-Nov-12	C4301																					
C4305	Cooper River Bridge - Cofferdams South Abut	5	5	21-Nov-12	28-Nov-12	C4301																					
C4205	Haddon Ave Bridge - South Abut Seat Modifications	5	5	22-Nov-12	29-Nov-12	C4201																					
C4202	Haddon Ave Bridge - Demolish West Step 1 North Abut	8	8	22-Nov-12	04-Dec-12	C4201																					
C4060	Milling 3" Thick & Varies	1	1	23-Nov-12	26-Nov-12	C4055																					
C4065	HMA Intermediate Course	3	3	26-Nov-12	29-Nov-12	C4060																					
C4040	Cantilever Structure at Sta 65+25	15	15	26-Nov-12	18-Mar-13	C4035																					
C4310	Cooper River Bridge - Piles South Abut	4	4	28-Nov-12	04-Dec-12	C4305																					
C4303	Cooper River Bridge - Demolish West Step 1 Pier	5	5	28-Nov-12	05-Dec-12	C4302																					
C4335	Cooper River Bridge - Cofferdams North Abut	5	5	28-Nov-12	05-Dec-12	C4305, C4302																					
C4080	HMA Driveways	1	1	29-Nov-12	30-Nov-12	C4070																					
C4070	Concrete Vertical Curb	5	5	29-Nov-12	06-Dec-12	C4065																					
C4090	Install Traffic Signal	10	10	29-Nov-12	13-Dec-12	C4070																					
C4210	Haddon Ave Bridge - Curing South Abut	5	5	30-Nov-12	04-Dec-12	C4205																					
C4075	Concrete Sidewalk	5	5	30-Nov-12	07-Dec-12	C4070, C4080																					
C4315	Cooper River Bridge - Tremie South Abut	2	2	04-Dec-12	06-Dec-12	C4310																					
C4215	Haddon Ave Bridge - North Abut Seat Modifications	5	5	04-Dec-12	13-Dec-12	C4205, C4202																					
C4340	Cooper River Bridge - Piles North Abut	4	4	05-Dec-12	13-Dec-12	C4335, C4310																					
C4320	Cooper River Bridge - Footing South Abut	2	2	06-Dec-12	11-Dec-12	C4315																					
C4085	Beam Guide Rail	2	2	07-Dec-12	11-Dec-12	C4070, C4075																					
C4325	Cooper River Bridge - South Abut	5	5	11-Dec-12	07-Jan-13	C4320																					
C4345	Cooper River Bridge - Tremie North Abut	2	2	13-Dec-12	19-Dec-12	C4340, C4315																					

START: 03-Feb-11	FINISH: 26-Feb-14	Actual Work	<p>New Jersey Department of Transportation</p> <p>Route 30/130 Collingswood/Pennsauken (Phase B)</p> <p>Contract No. 003009010</p> <p>PD CONSTRUCTION SCHEDULE</p>	SHEET 6 OF 9
DATA: 03-Feb-11	RUN: 18-Feb-09	Remaining Work		
		Critical Remaining Work		
		Milestone		

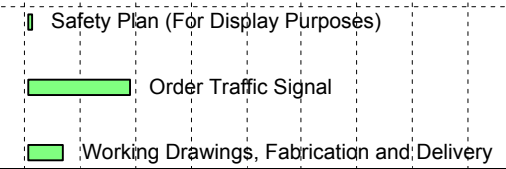
Activity ID	Activity Name	Original Duration	Remaining Duration	Early Start	Early Finish	Predecessors	2011				2012				2013				2014				2015				2016
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
C4220	Haddon Ave Bridge - Curing North Abut	5	5	14-Dec-12	18-Dec-12	C4215																					
C4225	Haddon Ave Bridge - Deck Joints West Step 1	2	2	19-Dec-12	21-Dec-12	C4220, C4210																					
C4350	Cooper River Bridge - Footing North Abut	2	2	19-Dec-12	07-Jan-13	C4345, C4320																					
C4230	Haddon Ave Bridge - Deck Forms West Step 1	6	6	07-Jan-13	21-Jan-13	C4225																					
C4355	Cooper River Bridge - North Abut	5	5	07-Jan-13	21-Jan-13	C4350, C4325																					
C4330	Cooper River Bridge - Curing South Abut	5	5	08-Jan-13	12-Jan-13	C4325																					
C4360	Cooper River Bridge - Curing North Abut	5	5	22-Jan-13	26-Jan-13	C4355																					
C4235	Haddon Ave Bridge - Shear Conn West Step 1	1	1	23-Jan-13	23-Jan-13	C4230																					
C4240	Haddon Ave Bridge - Deck Slab West Step 1	2	2	25-Jan-13	29-Jan-13	C4235																					
C4365	Cooper River Bridge - Framing West Step 1	3	3	29-Jan-13	04-Feb-13	C4360, C4330, C4303																					
C4245	Haddon Ave Bridge - Slab Curing West Step 1	5	5	30-Jan-13	03-Feb-13	C4240																					
C4250	Haddon Ave Bridge - Median Barrier	2	2	04-Feb-13	06-Feb-13	C4245																					
C4370	Cooper River Bridge - Deck Joints West Step 1	2	2	06-Feb-13	08-Feb-13	C4365																					
C4255	Haddon Ave Bridge - Median Barrier Curing	14	14	07-Feb-13	20-Feb-13	C4250																					
C4375	Cooper River Bridge - Deck Forms West Step 1	12	12	12-Feb-13	14-Mar-13	C4370																					
C4265	Haddon Ave Bridge - Sawcut Deck West Step 1	1	1	20-Feb-13	22-Feb-13	C4255																					
C4380	Cooper River Bridge - Shear Conn West Step 1	3	3	18-Mar-13	22-Mar-13	C4375																					
C4385	Cooper River Bridge - Deck Slab West Step 1	4	4	26-Mar-13	02-Apr-13	C4380																					
C4390	Cooper River Bridge - Slab Curing West Step 1	5	5	03-Apr-13	07-Apr-13	C4385																					
C4395	Cooper River Bridge - Median Barrier	4	4	08-Apr-13	11-Apr-13	C4390																					
C4400	Cooper River Bridge - Median Barrier Curing	14	14	12-Apr-13	25-Apr-13	C4395																					
C4410	Cooper River Bridge - Sawcut Deck West Step 1	1	1	25-Apr-13	26-Apr-13	C4400																					
Stage 4B		109	109	26-Apr-13	27-Sep-13																						
C4450	Maintenance of Traffic	1	1	26-Apr-13	29-Apr-13	M680																					
C4455	Install Erosion Control Devices	1	1	29-Apr-13	30-Apr-13	C4450																					
C4460	Removal of Concrete	1	1	30-Apr-13	01-May-13	C4455																					
C4500	Haddon Ave Bridge - Demolish West Step 2 Super	8	8	30-Apr-13	10-May-13	C4455																					
C4600	Cooper River Bridge - Demolish West Step 2 Super	10	10	30-Apr-13	14-May-13	C4455																					
C4465	Drainage System	1	1	01-May-13	02-May-13	C4460																					
C4470	Relocate Underground Utilities	1	1	01-May-13	02-May-13	C4465																					
C4800	Subbase	1	1	02-May-13	03-May-13	C4470																					
C4805	DGA, 8"	1	1	02-May-13	03-May-13	C4800																					
C4810	HMA Base Course	1	1	03-May-13	06-May-13	C4805																					
C4815	HMA Intermediate Course	1	1	06-May-13	07-May-13	C4820																					
C4820	Milling 3" Thick & Varies	1	1	06-May-13	07-May-13	C4810																					
C4825	Concrete Vertical Curb	1	1	07-May-13	08-May-13	C4815																					
C4830	Concrete Sidewalk	2	2	08-May-13	10-May-13	C4825																					
C4835	HMA Driveways	1	1	10-May-13	13-May-13	C4830																					
C4501	Haddon Ave Bridge - Demolish West Step 2 South Abut	8	8	10-May-13	22-May-13	C4500																					
C4601	Cooper River Bridge - Demolish West Step 2 South Abut	5	5	14-May-13	21-May-13	C4600																					
C4602	Cooper River Bridge - Demolish West Step 2 North Abut	5	5	21-May-13	28-May-13	C4601																					
C4605	Cooper River Bridge - Cofferdams South Abut	5	5	21-May-13	28-May-13	C4601																					
C4505	Haddon Ave Bridge - South Abut Seat Modifications	5	5	22-May-13	29-May-13	C4501																					
C4502	Haddon Ave Bridge - Demolish West Step 2 North Abut	8	8	22-May-13	03-Jun-13	C4501																					
C4603	Cooper River Bridge - Demolish West Step 2 Pier	5	5	28-May-13	04-Jun-13	C4602																					
C4610	Cooper River Bridge - Piles South Abut	5	5	28-May-13	04-Jun-13	C4605																					
C4635	Cooper River Bridge - Cofferdams North Abut	5	5	28-May-13	04-Jun-13	C4605, C4602																					
C4510	Haddon Ave Bridge - Curing South Abut	5	5	30-May-13	03-Jun-13	C4505																					
C4515	Haddon Ave Bridge - North Abut Seat Modifications	5	5	03-Jun-13	10-Jun-13	C4505, C4502																					
C4615	Cooper River Bridge - Tremie South Abut	2	2	04-Jun-13	06-Jun-13	C4610																					
C4640	Cooper River Bridge - Piles North Abut	5	5	04-Jun-13	11-Jun-13	C4610, C4635																					

START: 03-Feb-11 FINISH: 26-Feb-14
 DATA: 03-Feb-11 RUN: 18-Feb-09

█ Actual Work
█ Remaining Work
█ Critical Remaining Work
◆ Milestone

New Jersey Department of Transportation
 Route 30/130 Collingswood/Pennsauken (Phase B)
 Contract No. 003009010
 PD CONSTRUCTION SCHEDULE

Activity ID	Activity Name	Original Duration	Remaining Duration	Early Start	Early Finish	Predecessors	2011				2012				2013				2014				2015				2016
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Procurement		120	120	06-Apr-11	21-Sep-11																						
Contractor Submittals (Not Materials)		5	5	06-Apr-11	12-Apr-11																						
Safety Plan		5	5	06-Apr-11	12-Apr-11																						
PS100	Safety Plan (For Display Purposes)	5	5	06-Apr-11	12-Apr-11	M300																					
Material Submittals (Long Lead Items)		120	120	06-Apr-11	21-Sep-11																						
PS120	Order Traffic Signal	120	120	06-Apr-11	21-Sep-11	M300																					
Working Drawings		40	40	06-Apr-11	31-May-11																						
PS110	Working Drawings, Fabrication and Delivery	40	40	06-Apr-11	31-May-11	M300																					



JK

NEW JERSEY DEPARTMENT OF TRANSPORTATION
Memorandum

TO: Dan Saunders, Acting Administrator and Deputy SHPO
New Jersey Historic Preservation Office
Department of Environmental Protection

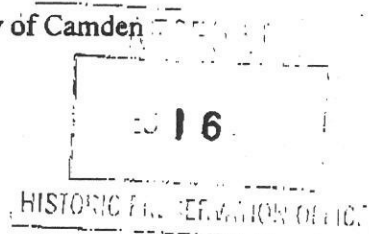
FROM: Janet A. Fittipaldi, Executive Manager
Bureau of Landscape Architecture and Environmental Solutions
Department of Transportation

DATE: December 16, 2008

SUBJECT: Rt. 30/130 Collingswood/Pennsauken (Phase B)
Borough of Collingswood, Township of Pennsauken, City of Camden
Camden County
Section 4(f): *de minimis*

PHONE: 530-5462

03-0776-13J
HPO-2008-171



The New Jersey Department of Transportation (NJDOT) is planning to use Federal Highway Administration (FHWA) funding for Phase B of the Collingswood Circle Elimination Project located in Camden County. The project involves widening Route 30/130 from two (2) to three (3) lanes from Haddon Avenue north to the Cooper River Bridge. Improvements also involve rehabilitating the Haddon Avenue Bridge (Structure No. 0405-152) and replacing the Cooper River Bridge (Structure No. 0405-153). The Cooper River Bridge is classified as structurally deficient and scour critical. The proposed project is designed to improve the safety and operational conditions along Route 30/130.

Three (3) National Register-eligible resources are located within the project's Area of Potential Effects. The resources and eligibility/effects under Section 106 are as follows:

- The Harleigh Cemetery (DOE: 6/15/95): No Adverse Effect
- Cooper River Park Historic District (DOE: 2/28/94): Adverse Effect
- Camden and Atlantic Railroad Historic District (SHPO Opinion: 9/17/01): No Effect

A Cultural Resources Survey Report: *Route 30/130 Mainline Roadway Improvement, Phase B Borough of Collingswood, City of Camden, Township of Pennsauken, Camden County* (September 2007) was prepared by A.D. Marble & Company and submitted to your office for review and concurrence regarding eligibility and effects on January 24, 2008.

The purpose of this memorandum is to notify your office that the NJDOT intends to use *de minimis* Evaluation of Impacts for the strip taking of Harleigh Cemetery property under Section 4(f).

The NJDOT met with representatives of the FHWA on March 10, 2008 to discuss Section 4(f) issues and the types of Section 4(f) documents that will be required for this project. On March 24, 2008, we received concurrence from Jeanette Mar of the FHWA via phone for the use of *de minimis* Evaluation of Impacts for the small strip taking of the Harleigh Cemetery.

De minimis Evaluation of Impacts to Harleigh Cemetery:

Based on review of the rigorous participation of consulting and interested parties and the reduction, through redesign, of the project from an Adverse Effect to a no Adverse Effect to the Harleigh Cemetery under Section 106, the NJDOT feels *de minimis* Evaluation of Impact is applicable for impacts to this site. The NJDOT intends to tint, texture and/or finish the proposed retaining wall and/or fence to be placed in front of the cemetery caretaker's house.

We are requesting that you acknowledge the use of *de minimus* Evaluation of Impact under Section 4(f) by signing the line below.

I understand it is the FHWA intent to make a *de minimis* finding for impacts to the Harleigh Cemetery.



Mr. Dan Saunders
Acting Administrator/Deputy State Historic Preservation Officer

12/23/08

Date

De Minimis Evaluation of Impacts
 Template Attachment for CED

Project Name: (Official project name)	Rt. 30/130 Collingswood/Pennsauken (Phase B)	
Project Number: (State/Federal ID #)	MG-0016(148)	
Location: Municipality(ies): County(ies): Route Number(s):	Borough of Collingswood, Township of Pennsauken, City of Camden Camden County Route 30/130	
Size: (Length of project in miles)	Approximately 0.64 miles	
Project Type: (e.g., new alignment, widening, safety improvements)	Bridge replacement with a wider structure; safety improvements	
Estimated Project Cost: (Cost should be updated as new estimates or final figures become available)	27 M	
NEPA Class of Action: (i.e., CE, EA or EIS)	CE	
No. of Section 4(f) Resources Used: (<i>de minimis</i> AND non- <i>de minimis</i> impacts)	Three (3): Harleigh Cemetery, Cooper River Park, Route 30/130 Bridge over the Cooper River	
De Minimis Findings: (Specify the 4(f) resource type(s) in which <i>de minimis</i> findings were made, i.e., Historic Sites; Publicly owned park, recreation area, wildlife or waterfowl refuge)	<i>De minimis</i> Evaluation of Impacts applied to the Harleigh Cemetery (Historic Site)	
De Minimis Impacts and Mitigation Measures: (Describe impacts and identify mitigation measures required to reach the finding; specify mitigation related to each 4(f) resource and impact, if there were multiple <i>de minimis</i> findings; provide details of the initial degree of impact, e.g., acreage to be impacted, feature to be replaced)	The Harleigh Cemetery, located on the southwest quadrant of the Route 30/130 over Cooper River bridge crossing, is a historic site eligible for the National Register (SHPO opinion: 6/15/95). <i>De minimis</i> Evaluation of Impacts was applied to the Harleigh Cemetery. Approximately 0.25 acre of ROW take & 0.06 acre of slope easements are required for construction and maintenance purposes, which will occur on the eastern boundary of the cemetery property (a later addition and un-landscaped). The proposed activities will not affect the character defining features of the resource; therefore, the project will cause No Adverse Effect to the Harleigh Cemetery.	

<p>Project Status: (Approval date of CE, FONSI, or ROD <i>or</i> current phase of project)</p>	<p>Anticipated CED approval date is January 2009</p>
<p>Construction Dates: (estimated dates)</p>	<p>Start: April 2011</p>
<p>Additional Information: (Information relevant to the <i>de minimis</i> finding or process, e.g., complications, public involvement, successful strategies)</p>	<p>Completion: May 2013</p> <p>The NJDOT informed the State Historic Preservation Officer FHWA's intention to use the de minimis Evaluation of Impacts in a letter dated March 26, 2008. Public outreach for the proposed project is ongoing.</p>

ROBERT E. ANDREWS

FIRST DISTRICT NEW JERSEY

COMMITTEES:

EDUCATION AND THE WORKFORCE

SENIOR RANKING DEMOCRAT, SUBCOMMITTEE ON
EMPLOYER-EMPLOYEE RELATIONS

MEMBER, SUBCOMMITTEE ON EDUCATION REFORM

ARMED SERVICES

MEMBER, SUBCOMMITTEE ON MILITARY PERSONNEL

MEMBER, SUBCOMMITTEE ON TERRORISM,
UNCONVENTIONAL THREATS AND CAPABILITIES

August 13, 2010
Congress of the United States
House of Representatives
Washington, DC 20515-3001

PLEASE REPLY TO:

2439 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-6501

506-A WHITE HORSE PIKE
HADDON HEIGHTS, NJ 08035
(856) 546-5100

63 NORTH BROAD STREET
WOODBURY, NJ 08096
(856) 848-3900

WEBSITE:

www.house.gov/andrews

Honorable Ra LaHood
Secretary of Transportation
U S. Department of Transportation
1200 New Jersey Avenue SE
Washington, DC 20590-0001

Dear Secretary LaHood:

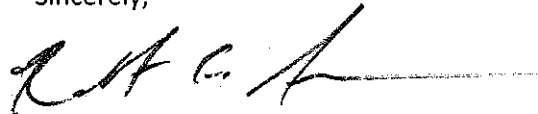
I am delighted to write to you in support of the New Jersey Department of Transportation's (NJDOT) Transportation Investment Generating Economic Recovery (TIGER II) grant application. Please accept this letter as an indication of my strong support for NJDOT's 2010 TIGER II Grant application.

The New Jersey Department of Transportation's Route 30/130 Collingswood/Pennsauken (Phase B) project will improve safety, traffic operations, and roadway deficiencies. In addition, this project will provide facilities for the use of bicyclists and pedestrians. Perhaps, most importantly, the project will correct the structural deficiencies and substandard safety features of the Route 30/130 Bridge, which runs over the Cooper River through Collingswood, Camden City, and Pennsauken Township. The project will address a number of substandard safety features including, stopping sight distance, vertical clearance, cross slopes/superelevation, and intersection sight distance.

The NJDOT project includes replacing the Haddon Avenue Bridge superstructure (Structure No. 0405-152) and the replacement of the Route 30/130 Bridge over the Cooper River (Structure No. 0405-153). The Haddon Avenue Bridge, which carries Route 30/130 over the Haddon Avenue off-ramp, will be widened and the superstructure will be replaced to accommodate superelevation requirements. The Route 30/130 Bridge over the Cooper River will be replaced due to its poor condition and will provide two through lanes, an auxiliary lane in each direction, and sidewalks. Both projects are extremely necessary and will benefit both New Jersey motorists and the local economy.

Thank you for your time and consideration of the NJDOT's application. If I can be of further assistance in this matter, please do not hesitate to contact me at (202)225-6583.

Sincerely,



Robert Andrews
Member of Congress



State of New Jersey

OFFICE OF THE GOVERNOR
PO Box 001
TRENTON, NJ 08625-0001

CHRIS CHRISTIE
Governor

August 16, 2010

Ray LaHood
Secretary of Transportation
Office of the Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Re: New Jersey Department of Transportation
National Infrastructure Investment
"TIGER II" Grants Program Application
Route 30/130 Collingswood/Pennsauken (Phase B)

Dear Secretary LaHood,

I am writing to express my support of the New Jersey Department of Transportation's application for funding the Route 30/130 Collingswood/Pennsauken (Phase B) project under the National Infrastructure Investment "TIGER II" Grants Program.

This project will improve safety, traffic operations and roadway deficiencies, as well as provide facilities for use by bicyclists and pedestrians, and correct the structural deficiencies and substandard safety features of the Route 30/130 Bridge over the Cooper River. Improvements will also provide for the social demands and economic development for the neighborhoods and industry dependent upon the Route 30/130 corridor.

I am confident that this application meets the aims and requirements of the National Infrastructure Investment "TIGER II" Grants Program, as it will promote the preservation and creation of jobs while providing for long term economic benefits through investments in New Jersey's transportation infrastructure.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Christie".

Chris Christie
Governor

FRANK R. LAUTENBERG

NEW JERSEY

COMMITTEES:

APPROPRIATIONS

COMMERCE, SCIENCE, AND
TRANSPORTATION

ENVIRONMENT AND
PUBLIC WORKS

United States Senate

WASHINGTON, DC 20510

August 20, 2010

The Honorable Ray LaHood
Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

Dear Secretary LaHood:

I am writing in support of the New Jersey Department of Transportation's TIGER II Grant Application for the Route 30/130 Collingswood/Pennsauken (Phase) B project. This funding would allow the New Jersey Department of Transportation to implement much needed upgrades in safety, traffic operations, and roadway deficiencies for Route 30/130.

In addition to upgrading bicycle and pedestrian facilities on Route 30/130, the New Jersey Department of Transportation's plans for the project include the adjustment of the Haddon Avenue Bridge and the replacement of the Route 30/130 Bridge due to structural deficiencies. The Route 30/130 Collingswood/Pennsauken (Phase) B project will also address safety concerns faced by motorists each day including stopping sight distance, vertical clearance, and intersection sight distance. The adjustments will be a clear advantage for those who travel through the Collingswood/Pennsauken region.

The funding from the New Jersey Department of Transportation's TIGER II grant application would allow for considerable improvement to a vital roadway in New Jersey. Through the Route 30/130 Collingswood/Pennsauken (Phase) B project, the safety, conditions, and operations of the highway would be substantially enhanced. I appreciate your review of this application and urge your favorable consideration.

Sincerely,



FRL/zwm



State of New Jersey

DEPARTMENT OF TRANSPORTATION
P.O. Box 600
Trenton, New Jersey 08625-0600

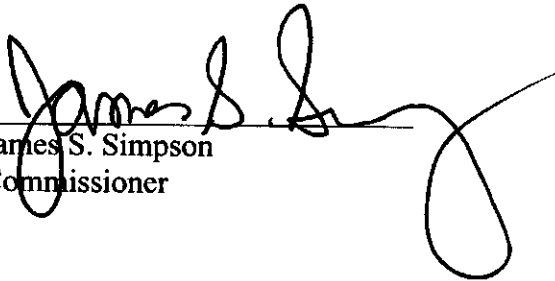
CHRIS CHRISTIE
Governor

JAMES S. SIMPSON
Commissioner

KIM GUADAGNO
Lt. Governor

CERTIFICATION

I, James S. Simpson, Commissioner of Transportation for The State of New Jersey, certify that Route 30/130 Collingswood/Pennsauken (Phase B) will comply with the requirements of subchapter IV of Chapter 31 of Title 40, United States Code (Federal wage rate required by the FY 2010 Appropriations Act).


James S. Simpson
Commissioner