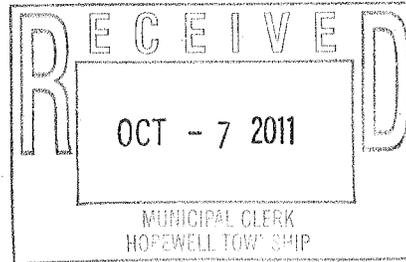


Hopewell Twp. Municipal Clerk  
Laurie E. Gompf  
201 Washington Crossing Pennington Road  
Titusville, NJ 08560



October 6, 2011

**Re:** Reconstruction of County Bridges – Bear Tavern Road (Cr 579) Bridge #214.2 over Jacobs Creek & Jacobs Creek Road Bridge #4-215.1 over Ewing Creek  
Flood Hazard Area and Freshwater Wetland Permit Applications - Notification  
Hopewell and Ewing Townships, Mercer County

Dear Ms. Gompf:

Please be advised that the County of Mercer is applying to the NJ Department of Environmental Protection for a Flood Hazard Area Individual Permit approval under the Flood Hazard Area Control Act (FHA) Rules (N.J.A.C. 7:13) and a Freshwater Wetlands Individual Permit under the Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:7A) for the project referenced above.

In accordance with the FHA Rules, please find enclosed three (3) copies of the required public notice for the proposed activities. Please retain one copy of this notice for public inspection and distribute one copy of the public notice to the municipal Planning Board and one copy to the municipal Environmental Commission, if any.

Additionally, enclosed, for your records is a complete copy of the Freshwater Wetlands Individual Permit. The freshwater wetland rules require that a complete copy of this application be sent to your office and that it be made available for inspection by the public during NJDEP's review period.

If you have any questions in this regard, you can contact me at the address below.

Sincerely,

Darren B. Stanker  
Lead Environmental Scientist  
Parsons Brinckerhoff  
2000 Lenox Drive, 3<sup>rd</sup> Floor  
Lawrenceville, NJ 08648

Enclosures



October 5, 2011

**Re:** Bear Tavern Road over Jacob's Creek Flood Hazard Area Individual Permit  
Hopewell and Ewing Townships, Mercer County

To Whom It May Concern:

This letter is to notify you that an application for flood hazard area verification will be submitted to the State of New Jersey Department of Environmental Protection (Department) for the project described on the attached application form. The Department regulates construction within flood hazard areas and riparian zones adjacent to certain waters. This application is a request for the Department to verify the extent of these areas on the subject property. In addition, an application for a flood hazard area permit will also be submitted to the Department for the project described on the attached application form. A flood hazard area permit is required for this project because some or all of the work is proposed in a flood hazard area or in a riparian zone. A hardship exception is also being sought as the project cannot satisfy the requirements under N.J.A.C. 7:13-10.2 due to the lack of area onsite to mitigate for loss of vegetation. If you have any comments or questions regarding this application, please write to the Department at the following address and include a copy of the first page of the attached application form:

State of New Jersey Department of Environmental Protection  
Division of Land Use Regulation  
Mail Code 501-02A  
P.O. Box 420  
Trenton, New Jersey 08625-0420  
Attn: Mr. Charles Welch

Your comments must be sent within 15 calendar days of your receipt of this letter to ensure that the Department will be able to consider your concerns during its review of this application. You can submit comments after this date but the Department may not be able to address your concerns. You can also contact the Department by telephone at (609) 292-0060 and can obtain general information about the flood hazard area program at the following website: [www.nj.gov/dep/landuse](http://www.nj.gov/dep/landuse).

If you have any questions in this regard, you can contact me at the address below.

Sincerely,



Darren Stanker  
Lead Environmental Scientist  
Parsons Brinckerhoff  
2000 Lenox Drive, 3<sup>rd</sup> Floor  
Lawrenceville, NJ 08648

Enclosure





**State of New Jersey**  
**Department of Environmental Protection**  
 Division of Land Use Regulation Application Form (LURP-2)  
 Division of Land Use Regulation  
 501 E. State Street Mail Code 501-02A P.O. Box 420  
 Trenton, NJ 08625-0420  
 www.nj.gov/dep/landuse



PLEASE PRINT OR TYPE THE FOLLOWING: (Complete all sections unless otherwise noted)

1. **Applicant Name:** County of Mercer Email: \_\_\_\_\_  
 Address: McDade Admin Bldg, 640 S. Broad St, Rm 306, PO Box 8068 City: Trenton  
 State: NJ Zip: 08650-0068 Daytime Phone: 609-989-6629 Ext.: \_\_\_\_\_ Cell Phone: \_\_\_\_\_

2. **Agent Name:** Darren B. Stanker Firm: Parsons Brinckerhoff Email: stanker@pbworld.com  
 Address: 2000 Lenox Dr, 3rd Floor City: Lawrenceville  
 State: NJ Zip: 08648 Daytime Phone: 609-512-3638 Ext.: \_\_\_\_\_ Cell Phone: 609-865-9445

3. **Property Owner Name:** Same as Applicant Information Email: \_\_\_\_\_  
 Address: \_\_\_\_\_ City: \_\_\_\_\_  
 State: \_\_\_\_\_ Zip: \_\_\_\_\_ Daytime Phone: \_\_\_\_\_

4. **Project Name:** Bear Tavern Road Improvemnts Site Location (Street Address): Bear Tavern Road over Jacobs and Ewing Creeks  
 Zip: \_\_\_\_\_ Municipality: Ewing and Hopewell Townships County: Mercer  
 Block(s): within county right-of-way Lot(s): within county right-of-way  
 N.A.D. 1983 State Plane Coordinates (feet) 6 digits only: E (x): 397200 N (y): 531320  
 Nearest Waterway: Jacobs Cr. and Ewing Cr. Watershed: Alexauken/Moore/Jacobs Cr. Subwatershed: Jacobs Cr (below/incl Wooley Br.)

5. **Fees:** Total Fee: \$35,000 Project Cost: \$5,800,000 Check No: \_\_\_\_\_

6. **Project Description:** The project will replace deficient bridges along Bear Tavern Road over Ewing Creek and Jacobs Creek.  
The project will also make operational and safety improvements along Bear Tavern Road.

7. **Application(s) for: Check all that apply (Please follow directions on page 5)**

	Application Type	Fee Amt	Amt Paid
	<b>Flood Hazard Area</b>		
<input checked="" type="checkbox"/>	FHA Verification	6300	6300
<input checked="" type="checkbox"/>	FHA Individual Permit	23000	23000
<input type="checkbox"/>	FHAGP1 / Chan Clean w/o Sed Removal	No Fee	No Fee
<input type="checkbox"/>	FHAGP1 / Chan Clean w/Sed Removal	No Fee	No Fee
<input type="checkbox"/>	FHAGP2A / Ag - Bank Restoration		
<input type="checkbox"/>	FHAGP2B / Ag - Channel Cleaning		
<input type="checkbox"/>	FHAGP2C / Ag - Road Crossing		
<input type="checkbox"/>	FHAGP2D / Ag - Wetlands Restoration		
<input type="checkbox"/>	FHAGP2E / Ag - Livestock Ford		
<input type="checkbox"/>	FHAGP2F / Ag - Livestock Fence		
<input type="checkbox"/>	FHAGP2G / Ag - Livestock Water Intake		
<input type="checkbox"/>	FHAGP3 / Bridge/Culvert Scour Protection		

	Application Type	Fee Amt	Amt Paid
	<b>Flood Hazard Area</b>		
<input type="checkbox"/>	FHAGP4 / Stormwater Maintenance		
<input type="checkbox"/>	FHAGP5 / Building Relocation		
<input type="checkbox"/>	FHAGP6 / Rebuild Damaged Home	No Fee	No Fee
<input type="checkbox"/>	FHAGP7 / Residential in Tidal FHA		
<input type="checkbox"/>	FHAGP8 / Utility Crossing <50acres		
<input type="checkbox"/>	FHAGP9 / Road Crossing <50acres		
<input type="checkbox"/>	FHAGP10 / Stormwater Outfall <50acres		
<input type="checkbox"/>	Revision of a GP, IP or Verification		
<input type="checkbox"/>	Transfer of an Approval		
<input type="checkbox"/>	FHA Ind Permit Equivalency/CERCLA		
	<b>Stormwater Review Fees</b>		
<input checked="" type="checkbox"/>	Fee for all Stormwater Reviews	3000	3000

	Application Type	Fee Amt	Amt Paid
	<b>Applicability Determination</b>		
<input type="checkbox"/>	Coastal Jurisdictional Determination	No Fee	No Fee
<input type="checkbox"/>	Highlands Jurisdictional Determination	No Fee	No Fee
<input type="checkbox"/>	Flood Hazard Area Applicability	No Fee	No Fee
<input type="checkbox"/>	Executive Order 215	No Fee	No Fee
	<b>CAFRA</b>		
<input type="checkbox"/>	Individual Permit		
<input type="checkbox"/>	Exemption Request		
<input type="checkbox"/>	Permit Modification		
<input type="checkbox"/>	CAFGP5 / Amusement Pier Exp		
<input type="checkbox"/>	CAFGP6 / Beach/Dune Maintenance		
<input type="checkbox"/>	CAFGP7 / Voluntary Reconstruction		
<input type="checkbox"/>	CAFGP8 / New Single Family or Duplex		
<input type="checkbox"/>	CAFGP9 / Reconstruct Single Fam/Dup		
<input type="checkbox"/>	CAFGP10 / New Bulkhead/Fill Lagoon		
<input type="checkbox"/>	CAFGP11 / Revetment		
<input type="checkbox"/>	CAFGP12 / Gabions		
<input type="checkbox"/>	CAFGP13 / Support Facilities/ Marina		
<input type="checkbox"/>	CAFGP14 / Reconst Bulkhead A/MHWL		
<input type="checkbox"/>	CAFGP15 / Hazard Waste Clean-up		
<input type="checkbox"/>	CAFGP16 / Landfall of Utilities		
<input type="checkbox"/>	CAFGP17 / Recreat Facility Public Park		
<input type="checkbox"/>	CAFGP18/BulkheadConstuct/Fill upland		
<input type="checkbox"/>	CAFGP21 / Shoreline Stabilization		
<input type="checkbox"/>	CAFGP22 / Avian Nesting Structures		
<input type="checkbox"/>	CAFGP23 / Electrical Sub Facility		
<input type="checkbox"/>	CAFGP24 / Legalize Filling of Tidelands		
<input type="checkbox"/>	CAFGP25 / Construct Telecom Tower		
<input type="checkbox"/>	CAFGP26 / Tourism Ind Construction		
<input type="checkbox"/>	CAFGP27 / Geotechnical Borings		
<input type="checkbox"/>	CAFGP29 / Habitat Creation/Enhance		
<input type="checkbox"/>	CAFGP30 / 1 to 3 Turbines < 200 Feet		
<input type="checkbox"/>	CAFGP31 / Wind Turbines < 250 Feet		
<input type="checkbox"/>	Individual Permit Equivalency/CERCLA		
	<b>Waterfront Development</b>		
<input type="checkbox"/>	WDGP10 / New Bulkhead/Fill Lagoon		
<input type="checkbox"/>	WDGP14 / Reconstruct Bulkhead		
<input type="checkbox"/>	WDGP19/Dock/Piers, Boat Lifts Lagoon		
<input type="checkbox"/>	WDGP20 / Minor Maint Dredge Lagoon		
<input type="checkbox"/>	WDGP21 / Shoreline Stabilization		
<input type="checkbox"/>	Individual Permit/Upland		
<input type="checkbox"/>	Individual Permit/Inwater		
<input type="checkbox"/>	Zane Letter		
<input type="checkbox"/>	Modification		
<input type="checkbox"/>	Individual Permit Equivalency/CERCLA		
	<b>Highlands</b>		
<input type="checkbox"/>	Emergency Permit		
<input type="checkbox"/>	Pre-application Meeting		
<input type="checkbox"/>	Preservation Area Approval		
<input type="checkbox"/>	PAA with Waiver		
<input type="checkbox"/>	Resource Area Determination footprint		
<input type="checkbox"/>	Resource Area Determination <acre		
<input type="checkbox"/>	Resource Area Determination >acre		
<input type="checkbox"/>	HPAAGP 1/Habitat Creation/Enhance		
<input type="checkbox"/>	HPAAGP 2 Bank Stabilization		
	<b>Consistency Determination</b>		
<input type="checkbox"/>	Water Quality Certificate		
<input type="checkbox"/>	Federal Consistency	No Fee	No Fee
<input type="checkbox"/>	HMC Water Quality Certificate		

	Application Type	Fee Amt	Amt Paid
	<b>Coastal/Tidal Wetlands</b>		
<input type="checkbox"/>	Coastal/Tidal Wetlands Permit		
<input type="checkbox"/>	Coastal Wetland Permit Modification		
	<b>Freshwater Wetlands</b>		
<input type="checkbox"/>	FWGP1 / Main. & repair Exist Feature		
<input type="checkbox"/>	FWGP2 / Utility Crossing		
<input type="checkbox"/>	FWGP3 / Discharge of Return Water		
<input type="checkbox"/>	FWGP4 / Hazard Site Invest/Cleanup		
<input type="checkbox"/>	FWGP5 / Landfill Closure		
<input type="checkbox"/>	FWGP6 / Filling of NSWC		
<input type="checkbox"/>	FWGP6A /TA- Filling of NSWC		
<input type="checkbox"/>	FWGP7 / Fill ditch / swale		
<input type="checkbox"/>	FWGP8 / House Addition		
<input type="checkbox"/>	FWGP9 / Airport Sightline Clearing		
<input type="checkbox"/>	FWGP10A / Very Minor Road Crossing		
<input type="checkbox"/>	FWGP10B / Minor Road Crossing		
<input type="checkbox"/>	FWGP11 / Outfalls / Intakes		
<input type="checkbox"/>	FWGP12 / Survey / Investigation		
<input type="checkbox"/>	FWGP13 / Lake Dredging		
<input type="checkbox"/>	FWGP14 / Water Monitoring		
<input type="checkbox"/>	FWGP15 / Mosquito Control		
<input type="checkbox"/>	FWGP16 / Habitat Create / Enhance	No Fee	No Fee
<input type="checkbox"/>	FWGP17 / Trails / Boardwalks		
<input type="checkbox"/>	FWGP17A / Multiuse paths		
<input type="checkbox"/>	FWGP18 / Dam Repairs		
<input type="checkbox"/>	FWGP19 / Dock or Pier		
<input type="checkbox"/>	FWGP20 / Bank Stabilization		
<input type="checkbox"/>	FWGP21 / Above Ground Utility		
<input type="checkbox"/>	FWGP23 / Expand Cranberry		
<input type="checkbox"/>	FWGP24 / Spring Developments		
<input type="checkbox"/>	FWGP25 / Malfunction Septic System	No Fee	No Fee
<input type="checkbox"/>	FWGP26 / Channel / Stream Clean		
<input type="checkbox"/>	FWGP27 / Redevelop Disturbed Site		
<input type="checkbox"/>	FWGP Modification		
<input type="checkbox"/>	FWGP Extension		
<input checked="" type="checkbox"/>	Individual Wetlands Permit	3600	2700 (75% fee)
<input type="checkbox"/>	Individual Open Water Permit		
<input type="checkbox"/>	Individual Permit Mod. Major/Minor		
<input type="checkbox"/>	Individual Permit Extension		
<input type="checkbox"/>	Wetlands Exemption		
<input type="checkbox"/>	Permit Equivalency/CERCLA		
	<b>Letter of Interpretation</b>		
<input type="checkbox"/>	Presence Absence		
<input type="checkbox"/>	Presence Absence Footprint		
<input type="checkbox"/>	Delineation		
<input type="checkbox"/>	Verification		
<input type="checkbox"/>	Extension		
	<b>Transition Area Waiver</b>		
<input type="checkbox"/>	Averaging Plan		
<input type="checkbox"/>	Reduction		
<input type="checkbox"/>	Hardship Reduction		
<input type="checkbox"/>	Special Activity Stormwater		
<input type="checkbox"/>	Special Activity Linear Development		
<input type="checkbox"/>	Special Activity Redevelopment		
<input type="checkbox"/>	Special Activity Individual Permit		
<input type="checkbox"/>	Exemption		
<input type="checkbox"/>	Modification Major/Minor		
<input type="checkbox"/>	Extension		

**Both the Applicant and Property owner's section must be filled out for all Land Use Regulation Applications**

**A. APPLICANT SIGNATURE**

I certify under penalty of law that the information provided in this document is true and accurate. I am aware that there are significant civil and criminal penalties for submitting false or inaccurate information. (If corporate entity, print/type the name and title of person signing on behalf of the corporate entity.)

  
\_\_\_\_\_  
Signature of Applicant/Owner  
September 29, 2011  
\_\_\_\_\_  
Date  
Gregory Sandusky, P.E., P.L.S.  
\_\_\_\_\_  
Print Name  
Mercer County DOT&I, Division of Engineering, Mercer County Engineers Office,  
Room 302, 640 South Broad Street, Trenton, NJ 08650-0068  
\_\_\_\_\_  
Print Address

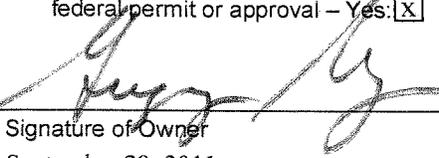
\_\_\_\_\_  
Signature of Applicant/Owner  
\_\_\_\_\_  
Date  
\_\_\_\_\_  
Print Name  
\_\_\_\_\_  
Print Address

**B. PROPERTY OWNER'S CERTIFICATION**

I hereby certify that the undersigned is the owner of the property upon which the proposed work is to be done. This endorsement is certification that the owner grants permission for the conduct of the proposed activity. In addition, I hereby give unconditional written consent to allow access to the site by representatives or agents of the Department for the purpose of conducting a site inspection or survey of the project site.

In addition, the undersigned property owner hereby certifies:

1. Whether any work is to be done within an easement – Yes:  No:
2. Whether any part of the entire project (e.g., pipeline, roadway, cable, transmission line, structure, etc.) will be located within property belonging to the State of New Jersey-Yes:  No:
3. Whether any work is to be done on any property owned by any public agency that would be encumbered by Green Acres – Yes:  No:
4. Whether any part of this project requires a Section 106(National Register of Historic Places) Determination as part of a federal permit or approval – Yes:  No:

  
\_\_\_\_\_  
Signature of Owner  
September 29, 2011  
\_\_\_\_\_  
Date  
Gregory Sandusky, P.E., P.L.S.  
\_\_\_\_\_  
Print Name  
Mercer County DOT&I, Division of Engineering, Mercer County Engineers Office,  
Room 302, 640 South Broad Street, Trenton, NJ 08650-0068  
\_\_\_\_\_  
Print Address

\_\_\_\_\_  
Signature of Owner  
\_\_\_\_\_  
Date  
\_\_\_\_\_  
Print Name  
\_\_\_\_\_  
Print Address

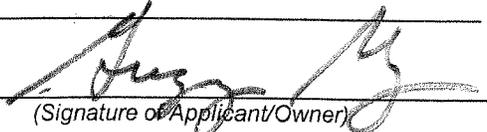
C. **APPLICANT'S AGENT**

NOTE: Notary seal is required for Flood Hazard Area (SEA) applications.

I Gregory Sandusky, the Applicant/Owner, authorize to act as my agent/representative in all matters pertaining to my application the following person:

Name Darren B. Stanker

Occupation/Profession Environmental Scientist, Parsons Brinckerhoff

  
(Signature of Applicant/Owner)

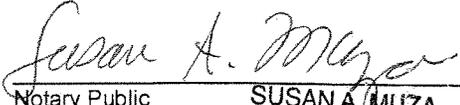
**AGENT'S CERTIFICATION**

Sworn before me this day of

October 6 20 11

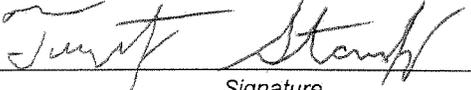
I agree to serve as agent for the above-mentioned applicant

  
(Signature of Agent)

  
Notary Public  
**SUSAN A. MUZA**  
NOTARY PUBLIC  
MERCER COUNTY, NJ  
MY COMMISSION EXPIRES SEPTEMBER 5, 2016

D. **STATEMENT OF PREPARER OF PLANS, SPECIFICATIONS, SURVEYOR'S OR ENGINEER'S REPORT**

I hereby certify that the plans, specifications and engineer's report, if any, applicable to this project comply with the current rules and regulations of the New Jersey Department of Environmental Protection with the exceptions as noted. In addition, I certify the application is complete as per the appropriate checklist(s).

  
Signature

Timothy Stanford, P.E., September 29, 2011

Type: Name and Date

Drainage Engineer, Parsons Brinckerhoff

Position, Name of Firm

E. **STATEMENT OF PREPARER OF APPLICATION, REPORTS AND/OR SUPPORTING DOCUMENTS (other than engineering)**

I certify under penalty of law that I have personally examined the information submitted in the document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining and preparing the information, I believe that the information is true, accurate and complete in accordance with the appropriate checklist(s). I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

  
Signature

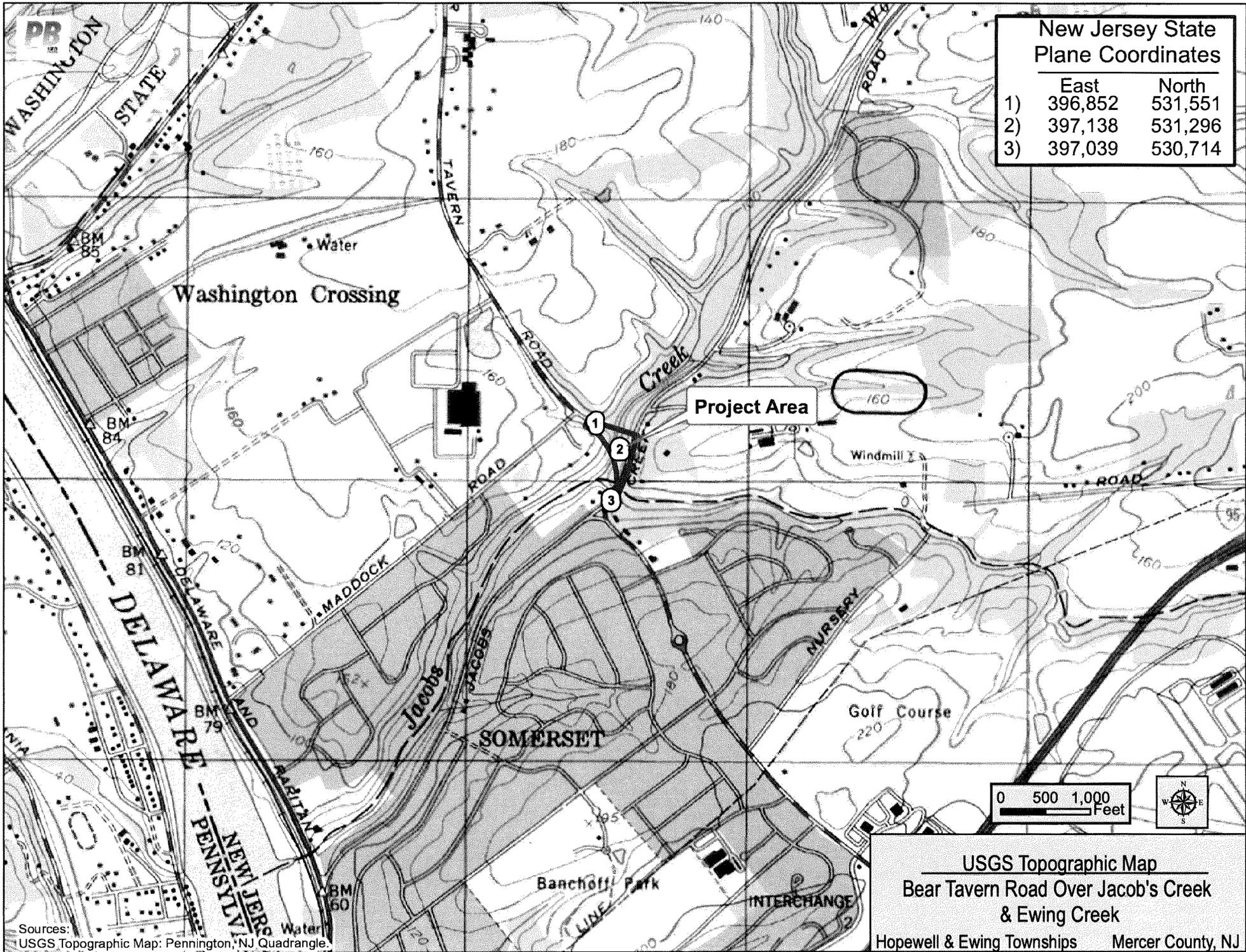
Darren B. Stanker, September 29, 2011

Type: Name and Date

Environmental Scientist, Parsons Brickerhoff

Position, Name of Firm

**Please note: In addition to the standard paper submission, an electronic copy of the entire application, including plans, may be submitted on CDROM to assist the Department in the review this application. Plans should be submitted as a CAD file or Shapefile, referenced in NJ state plane feet NAD83. Please do NOT send the electronic version via E-Mail.**



Sources:  
 USGS Topographic Map: Pennington, NJ Quadrangle.

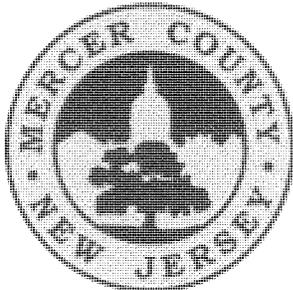
# **APPLICATION FOR FRESHWATER WETLANDS INDIVIDUAL PERMIT**

**RECONSTRUCTION OF COUNTY BRIDGES - BEAR TAVERN ROAD  
(CR 579) BRIDGE #214.2 OVER JACOBS CREEK & JACOBS CREEK  
ROAD BRIDGE #4-215.1 OVER EWING CREEK**

**TOWNSHIPS OF EWING AND HOPEWELL**

**MERCER COUNTY, NEW JERSEY**

**OCTOBER 2011**



Applicant:  
Mercer County  
McDade Administration Building  
P.O. Box 8068  
Trenton, NJ 08650  
Attn: Greg Sandusky, P.E.

Prepared By:  
Parsons Brinckerhoff  
2000 Lenox Drive.  
Princeton, NJ 08648  
Attn: Michael Tronccone, P.E.

# TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE NO.</u>
<b>I. LURP Form 1 Attachments .....</b>	<b>1</b>
1. Calculation of Fees .....	1
2. Project Description .....	1
3. Project Purpose and Need .....	3
4. Non-Water-Dependent Activity.....	3
5. Alternative Analysis.....	3
6. Required Permits and Approvals .....	3
<b>II. Standard Requirements (N.J.A.C. 7:7A-7.2(b)).....</b>	<b>5</b>
1. Alternatives .....	5
2. Minimization of Impacts .....	5
3. & 4. Threatened and Endangered Species and Critical Habitat.....	6
5. State Water Quality Standards.....	7
6. Toxic Effluent.....	8
7. Protection of Marine Resources.....	8
8. Ground and Surface Water Quality.....	8
9. Historic and Cultural Resources .....	9
10. Flood Hazard Area Control Act Rules .....	10
11. Lawfulness .....	10
12. Public Interest.....	10
13. Clean Fill Requirement .....	11
14. Water Quality Management Plan.....	11
15. Stormwater Management .....	11
<b>III. Best Management Practices .....</b>	<b>12</b>
<b>IV. Description of Freshwater Wetlands, Special Aquatic Sites, Plants and Wildlife That May Require Special Protection/Preservation .....</b>	<b>13</b>
1. Wetlands.....	13
2. Vegetative Communities .....	14
3. Special Aquatic Sites .....	14
4. Public Use Areas.....	14
5. Wildlife .....	15
6. Wildlife Refuge Areas .....	16
7. Potable Water Intakes .....	16
<b>V. Wetland Mitigation .....</b>	<b>17</b>
1. Mitigation Requirements.....	17

## TABLES

<b>Table 1</b>	Summary of Impacts.....	3
<b>Table 2</b>	Threatened and Endangered Wildlife Species within the Project Area.....	6
<b>Table 3</b>	Summary of Wetlands, Wetland Transition Areas, and State Open Waters Impacts.....	14
<b>Table 4</b>	Wetland Mitigation Requirements .....	17

## APPENDICES

<b>Appendix A</b>	NJDEP Individual Freshwater Wetlands Permit Application Checklist
<b>Appendix B</b>	Figures
<b>Appendix C</b>	Photographs of the Site
<b>Appendix D</b>	Wetland Data Sheets
<b>Appendix E</b>	Alternative Analysis
<b>Appendix F</b>	Municipal Officials & List of Adjacent Property Owners within 200 Feet
<b>Appendix G</b>	Public Notifications & Newspaper Notice
<b>Appendix H</b>	Names and Qualifications of Preparers
<b>Appendix I</b>	NJDEP Natural Heritage Letter, USFWS Municipal List, List of NJDEP Approved Wetland Mitigation Banks and NJDEP Pre-Application Meeting Minutes

## ATTACHMENTS

<b>Attachment A</b>	Wetland Permit Plans, Cross Sections and Construction Details (separate cover)
<b>Attachment B</b>	Cultural Resource Investigation (separate cover)

## **I. LURP-2 FORM ATTACHMENTS**

### **1.0 Calculation of Fees**

The proposed project will require a New Jersey Department Environmental Protection (NJDEP) Freshwater Wetland Individual Permit which carries a base fee of \$2,400.00. In addition, the project will impact approximately 0.4 acres of wetlands, wetland transition areas, and state open waters. These impacts will add \$240.00 per 1/10 acre (and fraction thereof) of impact to the total, therefore, an additional \$1,200.00 will be added to the fee. The total fee for the freshwater wetland IP application will be \$3,600.00, however, 75% of that amount will be paid because this submission is part of multiple permits required for the project.

### **2.0 Project Description**

This project is being proposed by Mercer County and is predicated on a previous study performed by the County. Replacement of the Jacobs Creek Bridge and realignment of Bear Tavern Road (BTR) has been investigated by the County for over 40 years. Right of way for the new roadway alignment was purchased in the mid 1960's. A recent study investigated numerous bridge and alignment alternatives for the Jacobs Creek Bridge crossing which were compiled in a Historic Alternative Analysis Report prepared by Keller & Kirkpatrick of Morris Plains, dated April 2009. The report recommended Alternative 5A/5B, the realignment of BTR and construction of a new parallel bridge over Jacobs Creek and rehabilitation of the existing historic bridge.

The project proposes to replace two existing bridges that carry County Route 579 (Bear Tavern Road) over Jacobs Creek and Jacobs Creek Road (JCR) over Ewing Creek. Both bridges have been deemed functionally obsolete, and the Jacobs Creek Bridge structurally deficient based on recent bridge inspections. The Jacob's Creek Bridge is currently closed to motor vehicles due to its serious structural condition. The roadway has been closed to traffic since 2009 and a detour is currently in place.

The Jacobs Creek Bridge incurred significant foundation damages due to flooding associated with Hurricane Irene in August, 2011. Flood damage included undermining and scouring around the bridge abutments and wingwalls that resulted in failure of portions of the wingwalls and rotation of the bridge abutments. The damage jeopardized the stability of the truss and the potential loss of the bridge superstructure. A structural inspection of the bridge warranted the issuance of a Priority E letter to the County which recommended emergency dismantling of the truss for preservation and safety purposes.

A meeting with representatives of NJDEP, including the State Historic Preservation Office (SHPO), was conducted on Tuesday, September 13<sup>th</sup> at which concurrence of dismantling was granted. Upon its dismantling the bridge will be cleaned, a protective coat added and stored in a secure facility for future reuse. It is the intent of this project to rehabilitate the

existing historically eligible Bridge over Jacobs Creek and relocate the bridge to Howell Living Farm (HLF); a Mercer County owned working farm/park. The HLM property lies within a National and State listed Historic District known as the Pleasant Valley Historic District (PVHD). The proposed bridge will service the park, serve in an educational capacity, and be used for pedestrian and non-motor vehicle purposes along the PVHD Wagon Tour conducted throughout the HLF and adjacent properties.

The proposed project will realign BTR such that it will be the primary through movement and its intersection with JCR reconfigured such that JCR forms a T-Intersection and becomes the stop condition. Under the current configuration vehicle traveling north on BTR must turn left to continue to travel north on BTR. The new alignment will utilize a substandard radius curve to minimize impacts to surrounding resources and will require a design exception.

Based on feedback obtained at a pre-application conference with NJDEP in June 2011, the roadway alignment was modified by shifting the originally proposed alignment to the east in an effort to reduce impacts to wetlands, open waters, the riparian zone and the potential historic landscape associated with the Jacobs Creek crossing. The new alignment shift will conflict with the existing historic bridge warranting its relocation while maintaining the operational integrity and safety of making BTR the primary through movement. The project also proposes the reconstruction of a five hundred linear foot stone masonry wall along the east side of BTR north of the Jacobs Creek Bridge in which several have collapsed into an adjacent tributary to Jacobs Creek. The project will also require the construction of new retaining walls at various locations including on the bridge approaches. The wall locations will reduce impacts to adjoining properties, environmental and cultural resources. New stormwater pipes, inlets and outfalls are required to properly drain the roadway, as well as new basins installed to comply with regulatory rules and requirements.

It is the intention of this job to implement aesthetic treatments on new walls and bridges which will likely result in stone clad exposed surfaces. Final aesthetic treatments and historical mitigations will be coordinated with the SHPO. A draft application to the New Jersey Historic Sites Council (HSC) was recently submitted by others entitled "BTR/ Jacob's Creek Crossing Rural Historic District" for listing on the New Jersey Register of Historic Places Act under N.J.A.C. 7:4. The proposed application was approved at the September 2011 State Board meeting. The proposed district will encompass a significant portion of the project area that includes the Jacobs and Ewing Creek Bridges and the existing stone masonry wall along Bear Tavern Road. As a result, the proposed actions will require the completion of an "Application for Project Authorization" from the State Review Board.

The New Jersey Department of Environmental Protection (NJDEP) classifies Jacobs Creek and Ewing Creek as FW2-NT (Freshwater, Non-trout). This classification indicates that this designated waterway has been determined to be unsuitable for trout production/maintenance due to the physical, chemical, and biological requirements of trout. A summary of impacts attributed to the proposed project can be found in Table 1.

**TABLE 1: Summary of Impacts**

<b><u>Permanent Impacts (Sq.Ft./ Acres)</u></b>			<b><u>Temporary Impacts (Sq.Ft./Acres)</u></b>		
<b>Wetland</b>	<b>Wetland Transition Area</b>	<b>State Open Water</b>	<b>Wetland</b>	<b>Wetland Transition Area</b>	<b>State Open Water</b>
<b>2,472/0.057</b>	<b>7,475/0.172</b>	<b>2,264/0.052</b>	<b>189/0.004</b>	<b>2,298/0.053</b>	<b>2,485/0.057</b>

Wetland disturbances have been minimized to the maximum extent practical by utilizing minimum roadway design standards including side slopes, shoulder widths, and retaining walls where appropriate. This report details freshwater wetlands, wetland transition areas, and State open waters located within the project corridor and the proposed impacts to those areas.

**3.0 Project Purpose and Need**

Refer to Purpose and Need section of the Alternative Analysis in Appendix E.

**4.0 Non-Water-Dependent Activity (N.J.A.C. 7:7A-7.4)**

*"Water-dependent activity" means an activity that cannot physically function without direct access to the body of water along which it is proposed. An activity that can function on a site not adjacent to the water is not considered water dependent regardless of the economic advantages that may be gained from a waterfront location.*

The project is not water dependent; however, due to the nature of this project it cannot be accomplished at an alternative site that eliminates all environmental impacts. As noted in the alternative analysis (Appendix E), the project scope and configuration have been set so that the major transportation goals have been met while minimizing environmental impacts to the maximum extent practicable.

**5.0 Alternative Analysis**

Alternative Analysis located in Appendix E

**6.0 Required Permits and Approvals**

In addition to this NJDEP Freshwater Wetlands Individual Permit (FWIP), the following permits/approvals would be required to implement the Bear Tavern Road project.

## **Federal**

- No Federal permits will be required

## **State**

- Flood Hazard Area Permit (FHAP) – Pursuant to the New Jersey Flood Hazard Area Control Act (N.J.S.A 58:16A) and implementing rules at N.J.A.C. 7:13, a FHAP is required for the construction, installation, or alteration of any structure or permanent fill along, in, or across the channel or flood hazard area of any stream. This included any alteration of the stream or flood hazard area. A FHAP is required for unavoidable encroachments on regulated waterways where culverts and bridges would be installed and flood hazard area and riparian zones would be impacted. A FHAP IP will be submitted to NJDEP along with this application.
- NJDEP Stormwater Management Rule Compliance – Pursuant to N.J.A.C. 7:8 the project meets the definition of “major development” because it has a total disturbance area greater than one acre. Therefore, compliance with SWM Rules requirements for groundwater recharge and quantity control will be required. The project adds only 0.15 acres of new net impervious area so compliance with the water quality requirement in the SWM Rule is not required.
- Section 401 Water Quality Certificate (WQC) – The issuance of a WQC by the NJDEP is required in conjunction with the Freshwater Wetlands Permit and Flood Hazard Area Permit to ensure consistency with the applicable Statewide or Area wide Water Quality Management (WQM) Plan.
- State Historic Preservation Office (SHPO) – The project will impact cultural resources associated with the Bear Tavern Road Bridge over Jacobs Creek as the bridge is eligible for National and State listing and also the potential Jacobs Creek Crossing Historic District. Therefore, the project will require coordination with SHPO. A review of the cultural landscape, potential impacts, and mitigation measures are included in the Alternative Analysis (Appendix E).
- NJDEP Mitigation Plan Approval - will be required to compensate for the loss of freshwater wetlands within the project corridor. The project will have a permanent impact of 0.057 acres to freshwater wetlands and 0.052 acres of state open water. The project will be mitigated as per N.J.A.C. 7-7A-15.5 – purchase of mitigation bank credits or monetary contribution.

## **County**

- Sediment & Soil Erosion Control Plan - will be required from the Mercer County Soil Conservation District because the project will result in greater than 5,000sq.feet of soil disturbance.

## II. STANDARD REQUIREMENTS (N.J.A.C. 7:7A-7.2(b))

### Standard requirements for all individual permits (N.J.A.C. 7:7A-7.2)

#### N.J.A.C. 7:7A-7.2 (b)

1. Has no practicable alternative which would meet the requirements at (b) i and ii below:
  - i. The alternative would have a less adverse impact on the aquatic ecosystem or would not involve a freshwater wetland or State open water; and
  - ii. The alternative would not have other significant adverse environmental consequences, that is, it shall not merely substitute other significant environmental consequences for those attendant on the original proposal

Disturbance to wetlands, water resources, and wildlife would occur as a result of the proposed project. These impacts are unavoidable and will result from project implementation, including roadway, stormwater and drainage improvements. The preferred alternative will permanently impact 0.057 acres of wetlands, 0.172 acres of wetland transition area, 0.052 acres of state open waters, and create 0.15 acres of new impervious surface. The preferred alternative minimizes to the greatest degree possible impacts to wetlands and state open waters. The techniques used to minimize impacts are described in the Alternative Analysis (Appendix E), which demonstrates that there is no feasible alternative that meets the project purpose and need that would result in less impact on the aquatic ecosystem or would not involve a freshwater wetland or SOW than the preferred alternative.

2. Will result in the minimum feasible alteration or impairment of the aquatic ecosystem including existing contour, vegetation, fish and wildlife resources, and aquatic circulation of the freshwater wetland and hydrologic patterns of the HUC 11 in which the activity is located.

Minor disturbances to wetlands and water resources will occur as a result of the proposed project. Multiple plan revisions were made to reduce wetland and open water impacts to the maximum extent practicable, which included determining minimum cross section for safe design of the roadway and the use of retaining walls, were appropriate to minimize impacts. The current proposed plan is the most environmentally responsible alternative available that would also achieve the purpose and need of the project. Additionally, hydraulics/hydrology of the bridges has been designed to maintain the same hydraulic openings and to maintain the

same surface water elevation. Therefore, no significant changes to the hydrologic patterns or aquatic circulation of the freshwater wetlands are expected as a result of this project.

3. **Will not destroy, jeopardize or adversely modify a present or documented habitat for threatened or endangered species; and shall not jeopardize the continued existence of a local population of a threatened or endangered species, as defined at N.J.A.C. 7:7A-1.4.**
4. **Will not be likely to result in the destruction or adverse modification of a habitat which is determined by the Secretary of the United States Department of the Interior or the Secretary of the U.S. Department of Commerce, as appropriate, to be a critical habitat under the Endangered Species Act of 1973, 16 U.S.C. § 1531 et seq.**

Correspondence with the NJDEP Natural Heritage Program (NHP) was conducted to determine if any endangered, threatened or rare species of significant natural communities are documented within or adjacent to the project area. The NJDEP NHP responded in a letter dated May 16, 2011 stating that the Landscape Project (Version 3 in the highlands region, and Version 2.1 elsewhere) and the Natural Heritage Database have records for two special concern species and one endangered species in the project area (See Appendix I).

The following table provides a listing of T&E occurrences recorded within the project area.

**TABLE 2: Threatened or Endangered Wildlife Species within the Project Area**

<b>Common Name</b>	<b>Scientific Name</b>	<b>State Status</b>	<b>G rank</b>	<b>S rank</b>	<b>Federal Status</b>
Shortnose sturgeon	<i>Acipenser brevirostrum</i>	Endangered	G3	S1	LE
Eastern box turtle	<i>Terrapene carolina carolina</i>	Special Concern	G5T5	S3	None
great blue heron	<i>Ardea herodias</i>	Special Concern	G5	S 3B, S4N	None

Additionally, the Natural Heritage Database and Landscape Project were also checked for any occurrences of any rare wildlife species or wildlife habitat within 1 mile of the project area and one special concern species, the Fowler's Toad (*Bufo woodhousii fowleri*), and one endangered species habitat, the bald eagle foraging (*Haliaeetus Leucocephalus*), were referenced in the project area. No rare plant species or natural communities were found to occur on or within 1 mile of the project site (See Appendix I).

In order to obtain USFWS information on Federally listed Threatened and Endangered species within the project area, the current USFWS procedures for determining if an action is subject to section 7 Consultation pursuant to the Federal Endangered Species Act (ESA) were consulted. Following these procedures, the USFWS Federally Listed and Candidate Species Occurrences in New Jersey by County and Municipality was utilized. According to the list (Appendix I), the federally-listed endangered Indiana bat (*Myotis sodalis*) could potentially be present in Ewing and Hopewell Townships.

According to the USFWS, Indiana bats hibernate in caves and abandoned mine shafts from October through April. From April through August the bats inhabit floodplain, riparian, wetlands and upland forests containing tree species such as elm (*Ulmus spp.*), hickories (*Carya spp.*), oaks (*Quercus spp.*), maples (*Acer spp.*), cottonwood (*Populus deltoids*), green ash (*Fraxinus pennsylvanica*) and sassafras (*Sassafras albidum*) roosting primarily during the day in dead and dying trees containing loose bark and foraging for insects in and around the tree canopy during the night. During the summer months, many females congregate together in maternity colonies under the loose bark of dead or dying trees within riparian, floodplain, wetland and upland forests. Between the months of August to mid-November, Indiana bats migrate and congregate near the location of their hibernacula, foraging and building up fat reserves for hibernation.

No bats or habitat were observed within the project area, however, to ensure no potential for disturbance, any clearing of trees over 5 inches in diameter at breast height (dbh) will be completed prior to April 1 and after November 15.

**5. Will not cause or contribute to a violation of any applicable State water quality standard.**

The NJDEP Division of Water Resources established water quality standards for the State's waterways. These standards classify surface water according to water quality and provide the basis for determining which uses are appropriate for those waters. Surface waters identified in the study area include Jacobs and Ewing Creek and their associated tributaries. All surface waters in the study area have been classified as Freshwater 2, Non-Trout (FW2-NT) waters according to the NJDEP Surface Water Quality Standards (N.J.A.C. 77:9b-1.15). Waters of this classification are not considered suitable for trout, but may be suitable for many other fish species. Stormwater best management practices have been included to address stormwater quantity and groundwater recharge requirements to the maximum extent practicable, water quality treatment is not required since the project only adds 0.15 acres of new net impervious area.

The project will include the installation of stormwater drains, basins and outfalls to allow for proper drainage of the roadway. Where practical, the use of an umbrella roadway section was implemented, however, due to the topographical conditions including steep grades and embankments as well as the need for retaining walls in cut and fill slopes, only isolated areas of umbrella sections were possible. Curbs are proposed along the roadway north of the Jacobs Creek crossing where the roadway profile is approximately 5% to prevent erosion at the roadway edges. Curbing was also installed fronting proposed retaining walls for maintenance purposes and in the intersection areas. Stormwater drains are proposed in curbed areas. The use of roadside swales was investigated but not deemed feasible due to limited right of way availability and topographical conditions at the site. Portions of the roadway stormwater will be collected in three proposed basins. The proposed roadway section will include two 11-foot lanes with 4-foot shoulders. Roadside safety devices such as guardrail and end treatments will be installed where deemed necessary to meet current standards and a 10-foot left turn lane is proposed on the northerly approach to Jacobs Creek Road.

**6. Will not cause or contribute to a violation of any applicable toxic effluent standard or prohibition imposed pursuant to the Water Pollution Control Act.**

No release of toxic effluent is expected as a result of the proposed project. The proposed improvements would not cause or contribute to a violation of any standard or prohibition pursuant to the Water Pollution Control Act.

**7. Will not violate any requirement imposed by the United States government to protect any marine sanctuary designated pursuant to the Marine Protection, Research and Sanctuaries Act of 1972, 33 U.S.C. §§ 1401 et seq.**

This project is located in a freshwater area; therefore this section does not apply to the proposed project. The project would not have any impact on any marine sanctuary designated pursuant to the Marine Protection Research and Sanctuaries Act of 1972.

**8. Will not cause or contribute to a significant degradation, as defined at 40 C.F.R. 230.10(c), of ground or surface waters.**

The proposed project is located within Watershed Management Area 11 (Central Delaware) and would not result in the degradation of ground water quality because there is no point of discharge. Because this is a roadway project, the only potential for the introduction of pollutants would come from vehicular discharges or spills that are already possible on the existing road surface.

In accordance with N.J.A.C. 7:8, a stormwater management plan has been provided for the project. The proposed stormwater management measures are designed in accordance with

the NJDEP Stormwater Management Rules and the NJDEP Stormwater Best Management Practices Manual. Stormwater management, including quantity control, water quality, and groundwater recharge, is addressed in Section III – Best Management Practices of this report.

Soil erosion and sediment control measures would be implemented to minimize soil loss and the associated potential for water quality impacts. These measures would conform to the "Standards for Soil Erosion and Sediment Control in New Jersey" (New Jersey State Soil Conservation Committee, 1999) and include, but are not limited to, those found in Section III – Best Management Practices.

## **9. Historic and Cultural Resources**

In accordance with N.J.A.C. 7:7A – 12.2, the project site was reviewed for the occurrence of known National and State Registers of Historic Places. No identified or listed historic properties or resources were identified; however, potentially eligible resources are present at the site. As such and as defined in N.J.A.C. 7:7A-1.4, a cultural resource investigation was performed which is attached in a report under a separate cover to this application. The attached report focuses on the southerly portion of the project which supplements a previous investigation in 2006 by the applicant, Mercer County which focused on the northerly project area including the Jacobs Creek crossing. The original investigation was previously submitted and reviewed by the New Jersey Historic Preservation Office (SHPO).

The Jacobs Creek Bridge (structure #214.2) was identified as eligible for listing in the State and National Registers of Historic Places. As previously stated in the project description, this bridge is currently in the process of being dismantled by the County due to flood damage in August 2011. Mercer County received authorization from NJDEP and SHPO to remove the bridge structure because any future storm surges could result in the complete loss of this historic resource. During the removal of the bridge, and as per SHPO standards, each piece of the historic truss will be cataloged. The bridge will then be stored at a secure facility prior to its reassembly and rehabilitation. It is the goal of the County to erect the Bridge at the Howell Living Farm, a Mercer County Park in Hopewell Township, NJ (see figure of proposed Historic District Wagon Tour at Howell Farm in Appendix A). The effort to relocate the dismantled bridge will be permitted under separate application.

Jacobs Creek Bridge is the only documented historic feature within the project area; however, an application to nominate the Jacobs Creek Crossing Historic District and adjacent lands was submitted to the SHPO and subsequently approved by the State Review Board on September 28<sup>th</sup>, 2011. To the applicant's knowledge, the final approval by the NJDEP Commissioner Office for the District had not yet been executed.

The proposed project will likely result in an adverse effect on the listed historic district and bridge thus the project will require an Application of Project Authorization pursuant to N.J.A.C. 7:4-7. Due to the recent nomination approval, the applicant will begin the Project Authorization process including consultation with SHPO which will occur concurrently with this application pursuant to N.J.A.C. 7:7A-12.2 (o) 2.

**10. Will not violate the Flood Hazard Area Control Act, N.J.S.A. 58:16A-50 et seq., or implementing rules at N.J.A.C. 7:13.**

The Flood Hazard Area Control Act Rules (N.J.A.C. 7:13) define the Regulatory Flood as that produced by the FHA DF (100yr+25%) storm as shown on the State floodplain mapping for Jacobs Creek and Ewing Creek. The State study extends from the Delaware River east to the confluence of Jacobs Creek and Ewing Creek, at that point the study continues up Ewing Creek. A Flood Hazard Area Permit is required for the excavation, grading and placement of net fill within the flood fringe area of Jacobs Creek and Ewing Creek, riparian zones, creation of impervious surfaces, and installation of bridge structures.

A Flood Hazard Area Permit application is being submitted to NJDEP in conjunction with this Individual Permit under separate cover to address all regulated activities associated with the floodplains in accordance with N.J.A.C. 7:13.

**11. Is otherwise lawful.**

The applicant agrees to comply with all laws and regulations that apply to the proposed project.

**12. Public Interest**

This project is in the public interest because it proposes to eliminate defects to the existing bridge crossings and will improve traffic operations, safety and reduce vehicular conflicts throughout the project area. The project will open the currently closed roadway for public use, as well as realign the roadway to allow for the reconfiguration of the intersection of Bear Tavern Road and Jacobs Creek Road such that Bear Tavern Road is the primary through movement. Prior traffic counts concluded traffic splits of 9 to 1 wish to continue traveling north on Bear Tavern Road which in its original configuration require a left turn. The reconfiguration will eliminate this traffic conflict thus improving safety and operations at the intersection. Under the current configuration traffic accidents based on the roadway classification were above statewide averages. There has been public opposition to the project due to its impact on the known historic resources. The applicant will consult with the SHPO in an effort to minimize impacts to these resources and where agreed mitigate these adverse impacts.

**13. Will not involve a discharge of dredged material or a discharge of fill material, unless the material is clean, suitable material free from toxic pollutants in toxic amounts, which meets Department rules for use of dredged or fill material.**

Any fill material used in the proposed project would comply with standard specifications. Any excavated material that would not be used as backfill would be disposed of in a lawful manner outside of any regulated floodplain, open water, freshwater wetland or wetland transition area, and in such a way as to not interfere with the positive drainage of the receiving area.

**14. Is consistent with the applicable approved Water Quality Management Plan (208 Plan) adopted under the New Jersey Water Quality Planning Act, N.J.S.A. 58:11A-1 et seq., unless the activities are not subject to the Department's Water Quality Management Planning rules at N.J.A.C. 7:15**

As stipulated at N.J.A.C 7:15-3.1(c), activities including stream encroachments regulated under the Flood Hazard Area Control Act, activities that require freshwater wetland permits, open water fill permits, or transition area waivers under the Freshwater Wetlands Protection Act, and discharges that require water quality certifications under Section 401 of the Clean Water Act, do not require a formal consistency determination review under N.J.A.C 7:15-3.2.

**15. In accordance with N.J.A.C. 7:7A-2.11, is part of a project that in its entirety complies with the Stormwater Management rules at N.J.A.C. 7:8.**

In accordance with N.J.A.C. 7:13-2.8, a Stormwater Management Report has been provided for the project. The proposed stormwater management measures are designed in accordance with the NJDEP Stormwater Management Rules and the NJDEP Stormwater Best Management Practices Manual. As part of the separate Flood Hazard Area Permit application, a report entitled "Flood Hazard Area Engineers Report" has been prepared. This report includes an assessment of the project's stormwater management measures and its compliance with the NJDEP Stormwater Management Rules (SWM). As detailed in the Engineers Report, the project complies with the groundwater recharge and quantity standards of the SWM rules. The project is exempt from water quality standards.

### **III. BEST MANAGEMENT PRACTICES**

- All work shall be done in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey.
- All soil erosion and sediment control practices would be installed prior to any vegetation disturbance (including grubbing and clearing activities) or major soil disturbance. These controls would be implemented in their proper sequence, and maintained until permanent protection is established. Prior to commencing construction of each stage of the project, perimeter controls shall be established. Specific sequencing of items discussed herein is shown on the plans. Heavy duty orange snow fence shall also be erected prior to construction to limit disturbance/intrusion by construction personnel, equipment, and materials, and shall remain in place for the duration of construction.
- The contractor shall not encroach upon or store any equipment, vehicles, or materials in wetlands/transition areas/State open water areas beyond the heavy duty orange snow fence. The fence shall be installed at the toes of fill slopes throughout the project, or where frequent and heavy construction traffic may dislodge the fill. Heavy duty orange snow fence shall also be erected prior to construction and shall remain in place for the duration of construction. In addition, stockpiles, vehicles, and/or equipment shall not be located within 50 feet of a wetland, stream or floodplain, whenever possible. All stockpile bases shall be protected by a hay bale barrier or silt fence.
- Inlet protection shall be installed at all proposed inlets. Existing storm drainage inlets, which would be intercepting flow from the construction zone, and all newly constructed inlets, would be protected with inlet filters installed in accordance with the standard construction details.
- Construction of embankments would follow the Roadway Grading Details shown in NJDOT Standard Construction Details. Regardless of embankment height, all temporary slopes would be stabilized with mulch. When embankments are constructed to their final width and slopes graded to their final grade, an NJDOT specified native seed mix would provide landscape vegetation to stabilize these areas.
- Turbidity barriers would be installed and maintained during construction in all required areas.

#### **IV. DESCRIPTION OF FRESHWATER WETLANDS, SPECIAL AQUATIC SITES, PLANTS AND WILDLIFE WHICH MAY REQUIRE SPECIAL PROTECTION/PRESERVATION**

##### **1. Wetlands**

Existing published information was studied to determine the approximate extent of wetlands within the project area and adjacent properties. A field investigation to delineate wetlands was performed in May 2011. Vegetation, soils, and hydrology were examined for evidence of wetland characteristics according to methodology outlined in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (Federal Interagency Committee on Wetland Delineation, 1989). Use of this methodology is required by the NJDEP, DLUR in accordance with the New Jersey Freshwater Wetlands Protection Act (NJFWPA) (N.J.A.C. 7:7A). The attached wetland plans (Attachment A) show surveyed wetland boundaries. Also shown is an existing approved LOI/wetland delineation (FWW-FWLI4-060002) performed by Habitat Management Design, Inc. which covers a portion of the project area. Data sheets documenting wetland areas within the project area are included in Appendix D and photographs taken of the project area are presented in Appendix C.

The proposed project would result in a permanent loss of 0.057 acres of freshwater wetlands and 0.021 acres of State Open Waters which are necessary for the proposed roadway and bridge. The placement of riprap in tributary of Jacobs Creek to protect a retaining wall will result in the permanent loss of 0.031 acres of State Open Water. Mitigation of these 0.112 acres of permanent wetland impact is addressed in more detail in Section V.

In addition, 0.057 acres of temporary State open water would occur due to construction activities within and adjacent to Jacobs Creek and Ewing Creek and will be restored following project completion to pre-construction conditions.

Approximately 0.172 acres of permanent wetland transition area and 0.053 acres of temporary transition area would be impacted by the proposed project.

**TABLE 3: Summary of Wetland, Wetland Transition Area, and State Open Waters Impacts (Acres)**

Plan Sheet ID	Wetland TYPE	Permanent Impacts			Temporary Impacts		
		Wetland	Wetland Transition Area	State Open Water	Wetland	Wetland Transition Area	State Open Water
WPP-1	PFO/SOW	0.000	0.003	0.01	0.000	0.011	0.006
WPP-2	PFO/SOW	0.057	0.169	0.033	0.004	0.042	0.001
WPP-3	PFO/SOW	0.000	0.000	0.009	0.000	0.000	0.050
<i>Totals</i>		<b>0.057</b>	<b>0.172</b>	<b>0.051</b>	<b>0.004</b>	<b>0.052</b>	<b>0.057</b>

**2. Vegetative Communities**

Dominant vegetation identified within the study area includes skunk cabbage (*Symplocarpus foetidus*, OBL), common rush (*Juncus effuses*, FACW+), reed canary grass (*Phalaris arundinacea*, FACW+), green ash (*Fraxinus pennsylvanica*, FACW), jewelweed (*Impatiens capensis*, FACW), northern spicebush (*Lindera benzoim*, FACW-), American sycamore (*Platanus occidentalis*, FACW-), red maple (*Acer rubrum*, FAC), eastern poison ivy (*Toxicodendron radicans*, FAC), American witchhazel (*Hamamelis virginiana*, FAC), Virginia springbeauty (*Claytonia virginica*, FACU), black walnut (*Juglans nigra*, FACU), mayapple (*Podophyllum peltatum*, FACU), Japanese barberry (*Berberis thunbergii*, FACU), sugar maple (*Acer saccharum*, FACU-), garlic mustard (*Alliaria petiolata*, FACU-), wild garlic (*Allium vineale*, FACU-), sedge (*Carex spp.*, N/A), and lesser celandine (*Ranunculus ficaria*, N/A).

**3. Special Aquatic Sites**

The definition of Special Aquatic Sites is provided at subpart E of the 404 (b) 1 guidelines (40 CFR 230 et seq.). Special Aquatic Sites include mudflats, vegetated shallows, coral reefs and riffle and pool complexes. None of these features are located within the project area.

**4. Public Use Areas**

No public use areas, green acres or other areas designated as open space exist within or directly adjacent to the project area.

## 5. Fish and Wildlife

The project area is located in a low density suburban/rural area where the proposed realignment would pass mainly through wooded wetlands. No significant wildlife populations were observed within the project area that would be dependent on water quality or quantity. Both Jacobs Creek and Ewing Creek are classified as FW2-NT (Freshwater 2, non-trout). Given the low flow of the waterway and field observations, no significant fish populations are anticipated to exist within or immediately downstream from the project area.

Species of wildlife present within the project area can be expected to be those typical of suburban/rural areas. The following list of species would potentially, but not necessarily, be found within project limits: squirrels, deer, rabbits, raccoons, skunks, opossums, woodchucks, turtles, snakes, hawks, owls, geese, and songbird.

Correspondence with the NJDEP Natural Heritage Program (NHP) was conducted to determine if any endangered, threatened or rare species or significant natural communities are documented within or adjacent to the project area. The NJDEP NHP responded in a letter dated May 16, 2011 that the Landscape Project (Version 2.1) and the Natural Heritage Database have records for several wildlife species or wildlife habitat in the project area and within one mile of the project area (see Appendix I). The Eastern box turtle (*Terrapene carolina carolina*), great blue heron (*Ardea Herodias*), and shortnose sturgeon (*Adpenser brevirostrum*) are documented as occurring on the referenced site. The project will not have an adverse impact on any species within the project area.

In order to obtain USFWS information on Federally listed Threatened and Endangered species within the project area, the current USFWS procedures for determining if an action is subject to section 7 Consultation pursuant to the Federal Endangered Species Act (ESA) were consulted. Following these procedures, the USFWS Federally Listed and Candidate Species Occurrences in New Jersey by County and Municipality was utilized. According to the list (Appendix I), the federally-listed endangered Indiana bat (*Myotis sodalis*) could potentially be present in Ewing and Hopewell Townships.

According the USFWS Indiana bats hibernate in caves and abandoned mine shafts from October through April. From April through August the bats inhabit floodplain, riparian, wetlands and upland forests containing tree species such as elm (*Ulmus spp.*), hickories (*Carya spp.*), oaks (*Quercus spp.*), maple (*Acer spp.*), cottonwood (*Populus deltoids*), green ash (*Fraxinus pennsylvanica*) and sassafras (*Sassafras albidum*) roosting primarily during the day in dead and dying trees containing loose bark and foraging for insects in and around the tree canopy during the night. During the summer months, many females congregate together in maternity colonies under the loose bark of dead or dying trees within riparian, floodplain, wetland and upland forests. Between the months of August to mid-November, Indiana bats

migrate and congregate near the location of their hibernacula, foraging and building up fat reserves for hibernation.

No bats or habitat were observed within the project area, however, to ensure no potential for disturbance, any clearing of trees over 5 inches in diameter at breast height (dbh) will be completed prior to April 1 and after November 15.

**6. Wildlife Refuge Areas**

There are no wildlife refuge areas on or in the immediate vicinity of the proposed project.

**7. Potable Water Intakes**

According to the NJDEP publication entitled *Purveyor Surface Water Intakes/Reservoirs – State of New Jersey* (1998), there are no public water supply intakes within or adjacent to the project area.

**V. WETLAND MITIGATION**

To compensate for the unavoidable loss to wetlands resulting from project implementation, Mercer County is proposing the purchase of mitigation credits from an approved bank or monetary contribution in accordance with the process outlined in Table 4 *Mitigation Alternatives for a Smaller Disturbance* (N.J.A.C. 7:7-15.5).

The project is located in the Central Delaware Watershed Management Area (WMA 11). Currently two approved mitigation banks exist within this WMA, Willow Grove Lake and the Nishisakawick Bank. As of the date of this application, the Willow Grove Lake bank is able to sell credits (Please see list of NJDEP Approved Mitigation Banks in Appendix I).

**1. Mitigation Requirements**

Mitigation requirements for this project are summarized in Table 4. The project will result in 0.06 acres of permanent impacts to intermediate resource value wetlands and 0.052 acres of permanent impact to State Open Waters.

**Table 4: Wetland Mitigation Requirements**

Wetland Type	Permanent Impact Area		Proposed Mitigation Ratio	Proposed Mitigation Requirement
	feet <sup>2</sup>	Acres		
Permanent Wetland Impact	2,472.3	0.057	2:1	0.114
Permanent State Open Water Impact	2,263.77	0.052	2:1	0.104
<i>TOTALS</i>	<i>4,736.07</i>	<i>0.109</i>		<i>0.218</i>

**APPENDIX A**

**NJDEP INDIVIDUAL FRESHWATER WETLANDS PERMIT  
APPLICATION CHECKLIST**



State of New Jersey  
Department of Environmental Protection  
Division of Land Use Regulation  
Mail Code 501-02A  
PO Box 420  
Trenton, NJ 08625-0420  
Fax# (609)-777-3656  
[www.nj.gov/dep/landuse/](http://www.nj.gov/dep/landuse/)



## INDIVIDUAL FRESHWATER WETLANDS PERMIT INDIVIDUAL OPEN WATER FILL PERMIT

### APPLICATION CHECKLIST AND FEE TABLE

(Updated 12/2010)

**To complete this checklist, you will need the following attachments:**

**Attachment A:** Form letter for providing certified mail notice of an application

**Attachment B:** Form for providing newspaper notice of an application

**Attachment C:** List of municipalities with swamp pink plants

**Attachment D:** List of municipalities with bog turtles

**LURP2 Form:** Application form

**NOTE:** Please provide only one copy of each item listed below, unless the item specifically states that more copies should be provided.

**NOTE:** The person who signs the LURP2 application form as the applicant must be the owner of the site, or a person with legal authority over the site to carry out all requirements of any authorization issued. Others may assist the applicant in preparing the application, however only one person may be identified in the application as the applicant's agent. The agent may be a consultant, engineer, attorney, or other person who has assisted or prepared the application. The agent is the person to which all correspondence will be sent and the person that has authority to make decisions with regard to the application.

**NOTE:** The term "site," when used in this application checklist, has the meaning set forth for that term at N.J.A.C. 7:7A-1.4.

## APPLICATION REQUIREMENTS:

To be deemed administratively complete, an application for an individual freshwater wetlands or open water fill permit must include all of the following items:

1. A LURP2 application form, completed in accordance with the directions on the form;
2. The appropriate fee, indicated in the fee table below, paid as follows:
- The fee shall be paid by personal check, certified check, attorney check, government purchase order, or money order;
  - The fee shall be made payable to "Treasurer, State of New Jersey";
  - Each check, purchase order, or money order must be marked with the name of the applicant;
  - Each check, purchase order, or money order must indicate the permit for which the application is submitted (for example, "freshwater individual permit");
  - If more than one permit is requested a fee break down should be included on a separate page.
3. Proof that the public notice requirements at A and B below have been met. (Note: To prove that an item has been sent to a person, submit either the stamped white postal receipt you receive when you send the item by certified mail, or the signed green certified mail return receipt card.) All of the following must be submitted:
- A. Proof that the municipal clerk has been sent a copy of the entire application that was submitted to NJDEP;
- B. Proof that a completed copy of the notice letter found in Attachment A has been sent to each of the following:
- i. The municipal environmental commission (if one exists);
  - ii. The municipal planning board;
  - iii. The municipal construction official;
  - iv. The county planning board;
  - v. The county mosquito control agency;
  - vi. The county environmental commission (if one exists); and
  - vii. One of the following sets of neighboring landowners (applicant choose one option):
- Option 1  All owners of land within 200 feet of the boundary of the site (see N.J.A.C. 7:7A-1.4 for a definition of "site").
- If this option is chosen, the application must also include a certified list of landowners within 200 feet of the site, obtained from the municipality; or
- Option 2  All owners of land within 200 feet of the disturbance.
- If this option is chosen, the application must also include a tax map with the location of the proposed disturbance outlined, and with an area extending 200 feet on all sides of the proposed disturbance outlined;

- C. Proof that a display advertisement has been published in the newspaper of record for the municipality in which the site is located. The advertisement shall be at least four column inches in size and shall include all of the information required in the notice letter in Attachment A;
  - To prove that this advertisement has been placed, the application must include a copy of the advertisement, or a copy of an affidavit from the newspaper, stating that the advertisement was published; and
- D. If the project involves more than ten acres of disturbance, proof that the notice in Attachment B has been published in a newspaper with regional circulation;

**Note:** If a project site is located in more than one municipality or county, the notice requirements in item 3 above must be met for each municipality and/or county in which the site is located.

- 4. A copy of a USGS quad map, with: the site clearly outlined; and State Plane coordinates for a point at the approximate center of the site. The accuracy of the State plane coordinate shall be within 50 feet of the actual center point of the site. Please use nad 1983. For assistance in determining the State plane coordinates for a site, contact the Department's Geographic Information (GIS) Office at (609) 777-0672.

**Note:** For a linear development, the State plane coordinates shall include the coordinates for the end point of the development and the coordinates for points located at 1,000 foot intervals along the entire length of the development.

- 5. An up to date county road map or local street map, with the site clearly indicated;
- 6. Original color photographs, mounted on 8½ by 11 inch paper, sufficient to show the conditions on the site, and the area that will be disturbed by the proposed activities. A minimum of ten photographs is required;
- 7. The following information on the location of wetlands on the site:
  - A. A line delineation LOI issued under N.J.A.C. 7:7A-3.3, or a line verification LOI issued under N.J.A.C. 7:7A-3.4; or
  - B. If no LOI has been issued for the site, or if only a presence/absence LOI has been issued, include all information required for an application for a line delineation LOI or line verification LOI. The wetlands line shall be show and labeled on the site plan required below;
  - C. The total area, in acres, of wetlands and State open waters on the site before the regulated activity is performed, and the total area, in acres, of wetlands and State open waters, on the site that will remain after the regulated activity is performed.
- 8. Ten copies of a detailed project description including:
  - A. The purpose and intended use of the proposed project;
  - B. A description of the proposed activities involved in completing the project;
  - C. A description of any structures to be erected, and how they will be used;
  - D. A schedule for the progress and completion of the proposed project;
  - E. The total area of freshwater wetlands and/or state open waters on the site;

- F. The total area of freshwater wetlands and/or State open waters proposed to be disturbed;
- G. A statement indicating whether the proposed project is a "water-dependent activity", as defined at N.J.A.C. 7:7A-1.4;
- H. If a site is known or suspected to be contaminated with toxic substances, and if the Department requests it, a laboratory analysis of representative samples of the soil or sediment on the site;

- 9. Ten copies of a detailed alternatives analysis demonstrating compliance with N.J.A.C. 7:7A-7.2The alternatives analysis shall include:
  - A. A description of all alternatives considered, including offsite alternatives as well as onsite alternatives that could minimize environmental impacts on the site, and the reasons for rejecting each alternative;
  - B. Information regarding the history of the property as a whole, as necessary to evaluate the cost to the property owner of various alternatives. Such information may include:
    - i. Document(s) showing when the property as a whole, as defined at N.J.A.C. 7:7A-1.4, was acquired and its purchase price;
    - ii. Documentation of any investments made to maintain and/or develop the property as a whole;
    - iii. Documentation of attempts by the property owner to sell the property or to obtain other property; and
  - C. Documentation of the environmental impacts of the proposed project, and of ways to minimize those impacts
- 10. Information regarding whether other approvals are required for the activities by Federal, interstate, State and local agencies for the activity; information regarding whether any such approvals or denials have been received; and information regarding whether the proposed activities are consistent with the rules, plans, or policies of other Federal, interstate, State and local agencies:
- 11. Ten copies of an explanation of how the proposed project will meet each of the requirements listed at N.J.A.C. 7:7A-7.2(b)1 through 15 and (c);
- 12. If the proposed project is not a "water-dependent activity", as defined at N.J.A.C. 7:7A-1.4, submit ten copies of documentation that all of the following criteria are met:
  - A. The basic project purpose cannot reasonably be accomplished using one or more other sites in the general region that would avoid or reduce the adverse impact on an aquatic ecosystem;
  - B. The basic project purpose cannot reasonably be accomplished if there is a reduction in the size, scope, configuration, or density of the project as proposed;
  - C. The basic project purpose cannot reasonably be accomplished by an alternative design that would avoid or reduce the adverse impact on an aquatic ecosystem; and
  - D. In cases where the applicant has rejected alternatives to the project as proposed due to constraints such as inadequate zoning, infrastructure, or parcel size, the applicant has made reasonable attempts to remove or accommodate such constraints;

- N/A 13. If the proposed project will take place in an exceptional resource value wetland or trout production water, and the project is not a "water-dependent activity", as defined at N.J.A.C. 7:7A-1.4, the applicant must submit ten copies of documentation (in addition to the information required under item 12 above) that one or both of the following criteria are met:
- A. There is a compelling public need for the proposed activity greater than the need to protect the freshwater wetland or trout production water, and that need cannot be met by essentially similar projects in the region which are under construction or expansion, or which have received the necessary governmental permits and approvals; or
  - B. Denial of the permit would impose an extraordinary hardship on the applicant brought about by circumstances peculiar to the subject property;
14. Ten copies of a description of best management practices, as defined at N.J.A.C. 7:7A-1.4, by which the applicant proposes to prevent or reduce the adverse environmental effects of the proposed activity on freshwater wetlands, transition areas, State open waters, and adjacent habitats;
15. Ten copies of a list of all plants, fish and/or wildlife in the portion of the site that will be affected by the proposed activities, which may be dependent on water quality and/or quantity;
16. Ten copies of a list and description of all freshwater wetlands, vegetative communities, special aquatic sites (as defined at N.J.A.C. 7:7A-1.4), public use areas, wildlife refuges, and potable water intakes on the site or adjacent to the site, which may require special protection or preservation;
17. A copy of the deed and/or other relevant documents pertaining to the site, showing property boundaries, ownership, easements, restrictions, previous approvals by any local, federal, interstate or state agency, and any other information relating to the site that will assist the Department in assessing compliance with the Freshwater Wetlands Protection Act rules, N.J.A.C. 7:7A;
18. Ten folded copies of a site plan or subdivision map, signed and sealed by a licensed surveyor and, where appropriate, a licensed engineer, showing:
- A. All existing structures on the site and on all immediately adjacent lots;
  - B. All proposed structures, disturbances, and activities;
  - C. Distances and dimensions of areas, structures and lots, including the boundaries of freshwater wetlands, state open waters, uplands, roads, and utility lines;
  - D. A complete delineation of the wetlands boundary in accordance with the requirements of letter of interpretation line verification. A letter of interpretation issued by the Department which show the wetlands boundary may be submitted to satisfy this requirement. Include a copy of a map or plan, which depicts the approved line;
  - E. The area which will be used for the proposed activity or discharge;
  - F. The location of the site in relation to development in the region;
  - G. The scale of the plan and a north arrow;

- H. The name of all persons who prepared the plan and the date of preparation;
- I. The name of the applicant, and municipal lot(s) and block number(s) of the project site;

- 19. Ten folded copies of a cross-sectional view of the proposed area of disturbance, showing:
  - A. Existing water elevations of the wetlands or open water;
  - B. Existing water depths at the waterward face of the proposed activities, or if dredging is proposed, show the dredging grade;
  - C. Cross-section of fill;
  - D. Elevation of dredged material disposal areas;
  - E. Location of wetlands and State open waters;
  - F. Delineation of disposal site; and
  - G. A complete title block stating the municipality, county; name of applicant; and date the plan was prepared.
  
- 20. Ten copies of a description of the source and location of any dredged material or fill material, as those terms are defined at N.J.A.C. 7:7A-1.4, that will be discharged on the site, or that will be dredged or excavated on the site, including:
  - A. The method of dredging used, if any;
  - B. The type, composition and quantity of the material;
  - C. The proposed method of transporting the dredged or fill material; and
  - D. The method of disposal of the material, including the type of equipment to be used;
  
- 21. A mitigation proposal that meets the requirements of N.J.A.C. 7:7A-15. The mitigation proposal may be submitted with the application or it may be submitted later. However, no permitted activities may begin until the Department has approved a mitigation proposal;
  
- 22. If the site is located in a municipality with the endangered plant known as swamp pink (Helonias Bullata) (these municipalities are listed in Attachment C), the application must also include a signed statement from the applicant, certifying that the proposed activities will not result in any direct or indirect adverse impacts to swamp pink or its documented habitat;  
N/A
  
- 23. If the site is located in a municipality with the endangered bog turtle (these municipalities are listed in Attachment D), the application must also include a signed statement from the applicant, certifying that the proposed activities will not result in any direct or indirect adverse impacts to bog turtles or to their documented habitat;  
N/A
  
- 24. If the application is for a proposed project that has disturbances of ¼ acre impervious surface in freshwater wetlands and/or transition area **or** if the total pervious and impervious disturbance to wetlands and/or transition is greater than an acre **or** if more than ¼ acre of impervious surface drains to any outfall requiring a general permit 11 the applicant must submit a Stormwater Report that proves the proposed project meets the Water Quality Standards at N.J.A.C. 7:8 and a full set of construction site plans.  
N/A

In addition to the above the following must be submitted

Stormwater management must be provided in certain cases as described below. See [www.njstormwater.org](http://www.njstormwater.org) for more information. (Note: if your freshwater wetlands application is being submitted jointly with a stream encroachment, waterfront development and/or CAFRA application, different means of determining whether the Stormwater Management rules may apply.)

A. Check (and explain) if the project:

- Is exempt from the stormwater rules at N.J.A.C. 7:8-5.2(d). (In such cases, you do not need to complete the rest of this section.)
- Meets the waiver requirements for public roadway improvements at N.J.A.C. 7:8-5.2(e).

B. Enter the total amount of land that will be disturbed (as described below):

2.87 ft<sup>2</sup> or acres (circle one).

“Disturbance” means the sum of the following:

- The total amount of proposed disturbance within freshwater wetlands, transition areas and open waters onsite.
- The total amount of proposed disturbance onsite, if runoff from the disturbed area will be collected and discharged into freshwater wetlands, transition areas or open waters.

If at least 1 acre (43,560 ft<sup>2</sup>) of land will be disturbed, as described above, submit the following (in the engineering report):

- One completed Low Impact Design checklist (see Appendix A of BMP manual at [www.njstormwater.org](http://www.njstormwater.org)).
- One copy of a USGS map, showing the site and its HUC-14 watershed and indicating any 300-ft buffers onsite.
- Proof that the groundwater recharge standards at N.J.A.C. 7:8-5.4(a)2 are met (unless exempted at N.J.A.C. 7:8-5.4(a)2ii).
- Proof that the runoff quantity standards at N.J.A.C. 7:8-5.4(a)3 are met (unless the project lies in a tidal floodplain and will cause no adverse impacts to flooding, as described at N.J.A.C. 7:8-5.4(a)3iv).
- Proof that the use of nonstructural stormwater strategies has been maximized onsite via one of the following:
- A completed Nonstructural Stormwater Strategies Point System spreadsheet (see [www.njstormwater.org](http://www.njstormwater.org)).
- A detailed narrative (including an alternative analysis where necessary), explaining how the project does (or does not) implement all nine nonstructural strategies required at N.J.A.C. 7:8-5.3.

C. Enter the net-increase in impervious area onsite (as described below):

0.15 ft<sup>2</sup> or acres (circle one).

“Impervious areas” means the sum of the following:

- The total amount of proposed impervious areas within freshwater wetlands, transition areas and open waters onsite.

- The total amount of proposed impervious areas onsite, if runoff from the impervious areas will be collected and discharged into freshwater wetlands, transition areas or open waters. Include all new impervious areas onsite, as well as existing impervious areas from which stormwater currently sheet-flows, but which will be collected into a basin or storm sewer system. Subtract any impervious areas being removed onsite, if runoff from the area to be removed is currently collected and discharged into within freshwater wetlands, transition areas and open waters.

If a net-increase of at least  $\frac{1}{4}$  acre (10,890 ft<sup>2</sup>) of impervious area will occur, as described above, submit all material in Part B above and the following:

- Proof (in the engineering report) that the water quality standards at N.J.A.C. 7:8-5.5 are met.

D. Complete a Stormwater Review Fee worksheet to calculate the appropriate stormwater review fee

25. If the site is located in an area designated a Wild and Scenic River, or under study for such designation, submit a letter from the National Park Service approving the proposed activities.

N/A

- As of August 1, 2001, the water bodies containing designated wild and scenic river areas in New Jersey are:
  - The Maurice River and tributaries;
  - The Great Egg Harbor River and tributaries
  - Portions of the Mullica/Lower Atsion River; and
  - Portions of the Delaware River.
- Contact the Department at the above address for more detailed information on wild and scenic rivers.

- 26 Applications reflecting any of the characteristics at N.J.A.C. 7:7A-12.2(l)1-5 shall be deemed to present a high probability of the presence of historic and archaeological resources, requiring assessment and shall require, with the wetlands permit application, the submittal of a Phase IA historical and archaeological survey, and an architectural survey, defined at N.J.A.C. 7:7A-1.4. Please see N.J.A.C. 7:7A-12.2(l), (m), (n), (o) and (p) for more details.

For more information, see the Freshwater Wetlands Protection Act rules at N.J.A.C. 7:7A.

**INDIVIDUAL FRESHWATER WETLANDS PERMIT  
INDIVIDUAL OPEN WATER FILL PERMIT  
APPLICATION FEES**

Type of approval	Fee
Individual freshwater wetlands or open water fill permit	\$2,400.00 <sup>1</sup> plus \$240.00 per 1/10 <sup>2</sup> acre affected <sup>3</sup>
Individual permit extension	\$1,200.00
Minor modification	\$240.00
Major modification	25 percent of the application fee originally charged for the approval that is being modified, or \$240.00, whichever is higher

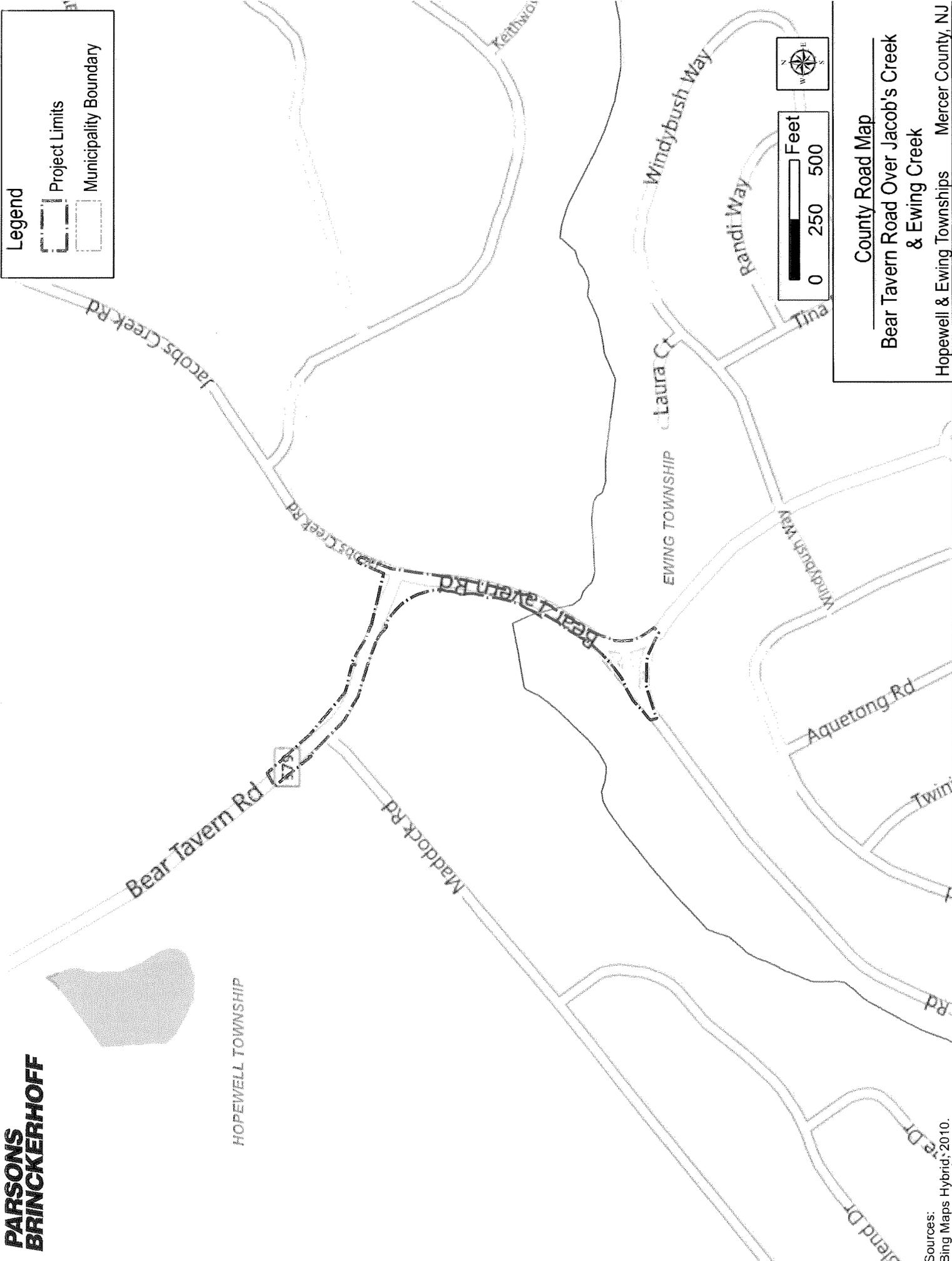
Notes:

1. Plus, as applicable, the additional fees for major developments as defined at N.J.A.C. 7:8-1.2
2. Cost "per 1/10 acre" means the cost is per tenth of an acre or fraction thereof, such that an area of 0.12 acres would have the same fee as an area of 0.2 acres.
3. When this fee table refers to an "acre affected", this means an acre of freshwater wetlands or State open water that will be affected by a regulated activity.

## **APPENDIX B**

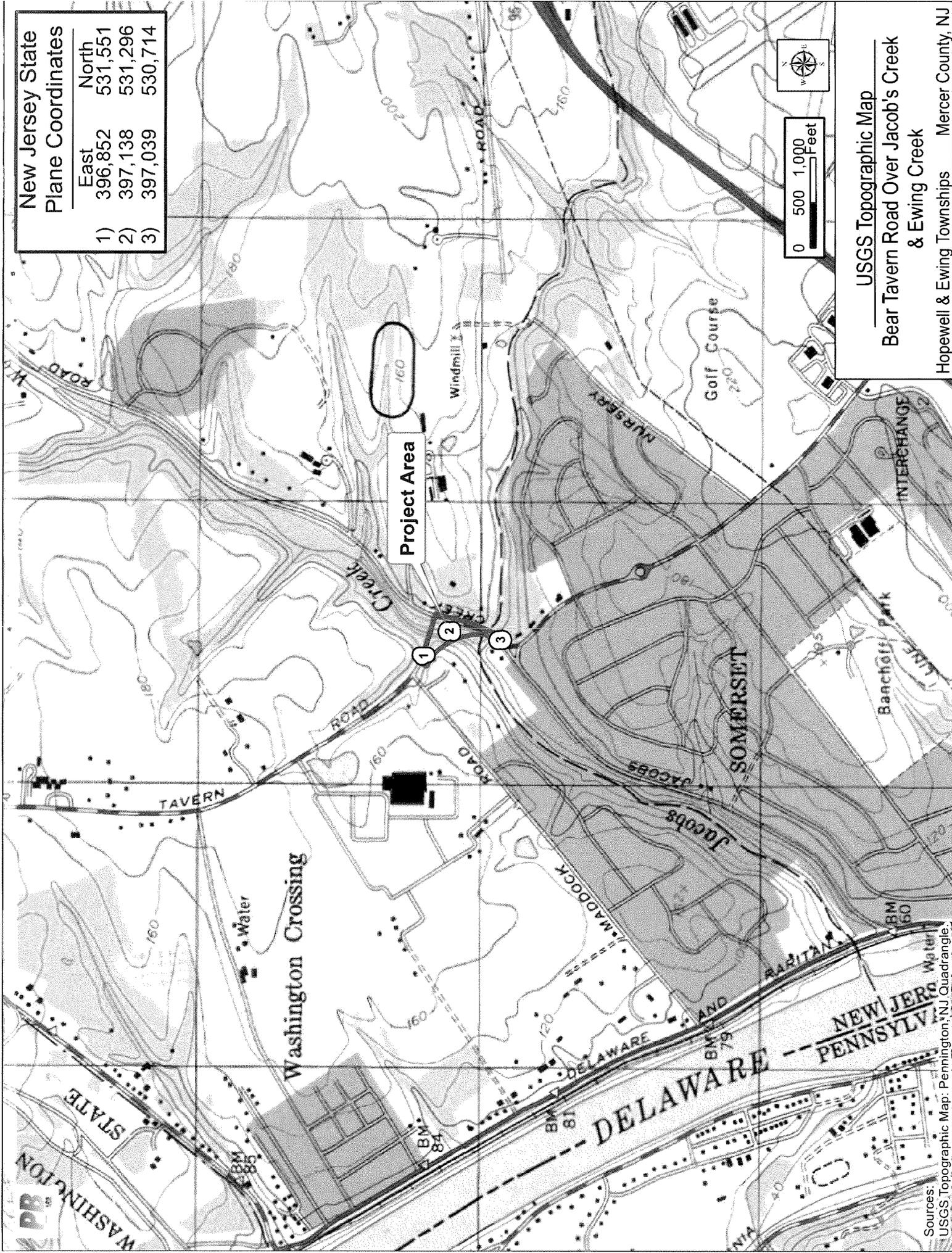
### **FIGURES**

HOPEWELL TOWNSHIP



**County Road Map**  
**Bear Tavern Road Over Jacob's Creek  
& Ewing Creek**  
Hopewell & Ewing Townships    Mercer County, NJ

New Jersey State Plane Coordinates	
	North
1)	396,852
2)	397,138
3)	397,039



USGS Topographic Map  
 Bear Tavern Road Over Jacob's Creek  
 & Ewing Creek

Hopewell & Ewing Townships Mercer County, NJ

Sources:  
 USGS Topographic Map: Pennington, NJ Quadrangle.

**PARSONS  
BRINCKERHOFF**

**Legend**

- Streams
- Project Limits
- SSURGO Soils
- Municipality Boundary



**SSURGO Soils Map**  
**Bear Tavern Road Over Jacob's Creek  
& Ewing Creek**  
Hopewell & Ewing Townships Mercer County, NJ

**SSURGO Soils**  
BoyAt - Bowmansville silt loam, 0-2% slopes, frequently flooded  
Kkoe - Klinesville channery loam, 18-35% slopes  
PcoD - Penn channery silt loam, 12-18% slopes

Sources:  
NRCS SSURGO Soils of Mercer County, 2009.

**APPENDIX C**

**PHOTOGRAPHS OF THE SITE**



Photo A: Looking Southeast at Wetland Lines A & B delineating Open Water



Photo B: Looking Northwest at Wetland Lines A & B delineating Open Water



Photo C: Looking Southwest at Wetland C/D/E



Photo D: Looking Southwest at Wetland C and Jacob's Creek, Bear Tavern Road Bridge in background



Photo E: Looking East at Wetland C, Jacob's Creek Road in Background



Photo F: Looking South at Wetland D



Photo G: Wetland D Looking West at Jacob's Creek



Photo H: From Bear Tavern Road Bridge Looking Southwest At Ewing Creek and Wetlands F, G, & H



Photo 1: Fringe Wetland F Looking North At Bear Tavern Road Bridge Over Ewing Creek

**APPENDIX D**

**WETLAND DATA SHEETS**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**(1987 COE Wetlands Delineation Manual)**

Project/Site: <u>Bear Tavern Road</u> Applicant/Owner: <u>Mercer County</u> Investigator(s): <u>Darren Stanker &amp; Amanda Mendoza</u>	Date: <u>5/9/11</u> County: <u>Mercer</u> State: <u>NJ</u>
---	--

Do Normal Circumstances exist on the site?      Yes <b>No</b> Is the site significantly disturbed (Atypical Situation)      Yes <b>No</b> Is the area a potential Problem Area?      Yes <b>No</b> (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: <u>D15 wet</u>
--	--

**VEGETATION**

#	Dominant Plant Species	Stratum	Indicator	#	Dominant Plant Species	Stratum	Indicator
1.	<i>Symplocarpus foetidus</i>	Herb	OBL	9.			
2.	<i>Phalaris arundinacea</i>	Herb	FACW+	10.			
3.	<i>Ranunculus ficaria</i>	Herb	N/A	11.			
4.	<i>Hamamelis virginiana</i>	Sap	FAC-	12.			
5.	<i>Lindera benzoin</i>	Sap	FACW-	13.			
6.	<i>Arisaema triphyllum</i>	Sap	FACW-	14.			
7.	<i>Acer saccharum</i>	Tree	FACU-	15.			
8.				16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) 57%

Remarks:

**HYDROLOGY**

Recorded Data (Describe in Remarks):  
      Stream, Lake or Tide Gauge  
      Aerial Photographs  
      Other  
  
 No Recorded Data Available

Field Observations:  
 Depth of Surface Water: \_\_\_\_\_ (in.)  
 Depth to Free Water in Pit: \_\_\_\_\_ (in.)  
 Depth to Saturated Soil: \_\_\_\_\_ (in.)

Wetland Hydrology Indicators:  
 Primary Indicators:  
 Inundated  
 Saturated in Upper 12 inches  
 Water Marks  
 Drift Lines  
 Sediment Deposits  
 Drainage Patterns in Wetlands  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 inches  
 Water-Stained Leaves  
 Local Soil Survey Data  
 FAC-Neutral Test  
 Other (Explain in Remarks)

Remarks:

# SOILS

MAP Unit Name (Series and Phase): <u>Penn channery silt loam</u>	Drainage Class: <u>well drained</u> Field Observations Confirm Mapped Type? Yes No
Taxonomy (Subgroup): _____	

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
1-12		7.5 YR 2.5/3			

Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol<br><input type="checkbox"/> Histic Epipedon<br><input type="checkbox"/> Sulfidic Odor<br><input type="checkbox"/> Aquic Moisture Regime<br><input type="checkbox"/> Reducing Conditions<br><input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Concretions<br><input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils<br><input type="checkbox"/> Organic Streaking in Sandy Soils<br><input type="checkbox"/> Listed on Local Hydric Soils List<br><input type="checkbox"/> Listed on National Hydric Soils List<br><input type="checkbox"/> Other (Explain in Remarks) |
|---|--|

Remarks: Refusal at 12" – Soils inferred

## WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<b>Yes</b>	No
Wetland Hydrology Present?	<b>Yes</b>	No
Hydric Soils Present?	Yes	No
Is this sampling Point within a wetland?	<b>Yes</b>	No

Remarks:

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**(1987 COE Wetlands Delineation Manual)**

Project/Site: <u>Bear Tavern Road</u> Applicant/Owner: <u>Mercer County</u> Investigator(s): <u>Darren Stanker &amp; Amanda Mendoza</u>	Date: <u>5/9/11</u> County: <u>Mercer</u> State: <u>NJ</u>
---	--

Do Normal Circumstances exist on the site?      Yes <input type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (Atypical Situation)      Yes <input type="checkbox"/> No <input type="checkbox"/> Is the area a potential Problem Area?      Yes <input type="checkbox"/> No <input type="checkbox"/> (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: <u>D15 up</u>
---	---

**VEGETATION**

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1.	<i>Podophyllum peltatum</i>	Herb	FACU	9.			
2.	<i>Claytonia virginica</i>	Herb	FACU	10.			
3.	<i>Berberis thunbergii</i>	Shrub	FACU	11.			
4.	<i>Toxicodendron radicans</i>	Vine	FAC	12.			
5.	<i>Arisaema triphyllum</i>	Herb	FACW-	13.			
6.				14.			
7.				15.			
8.				16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) 40%

Remarks:

**HYDROLOGY**

\_\_\_ Recorded Data (Describe in Remarks):  
     \_\_\_ Stream, Lake or Tide Gauge  
     \_\_\_ Aerial Photographs  
     \_\_\_ Other

\_\_\_ No Recorded Data Available

Field Observations:

Depth of Surface Water: \_\_\_\_\_ (in.)  
 Depth to Free Water in Pit: \_\_\_\_\_ (in.)  
 Depth to Saturated Soil: \_\_\_\_\_ (in.)

Wetland Hydrology Indicators:

Primary Indicators:

\_\_\_ Inundated  
 \_\_\_ Saturated in Upper 12 inches  
 \_\_\_ Water Marks  
 \_\_\_ Drift Lines  
 \_\_\_ Sediment Deposits  
 \_\_\_ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):

\_\_\_ Oxidized Root Channels in Upper 12 inches  
 \_\_\_ Water-Stained Leaves  
 \_\_\_ Local Soil Survey Data  
 \_\_\_ FAC-Neutral Test  
 \_\_\_ Other (Explain in Remarks)

Remarks:

## SOILS

MAP Unit Name

(Series and Phase): Penn channery silt loam

Drainage Class: well drained

Field Observations

Taxonomy (Subgroup): \_\_\_\_\_

Confirm Mapped Type? Yes No

### Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
1-12		7.5 YR 2.5/3			

### Hydric Soil Indicators:

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol                    | <input type="checkbox"/> Concretions  |
| <input type="checkbox"/> Histic Epipedon             | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor               | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime       | <input type="checkbox"/> Listed on Local Hydric Soils List                    |
| <input type="checkbox"/> Reducing Conditions         | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks:

## WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	No
Wetland Hydrology Present?	Yes	No
Hydric Soils Present?	Yes	No
Is this sampling Point within a wetland?	Yes	No

Remarks:

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**(1987 COE Wetlands Delineation Manual)**

Project/Site: <u>Bear Taven Road</u> Applicant/Owner: <u>Mercer County</u> Investigator(s): <u>Darren Stanker &amp; Amanda Mendoza</u>	Date: <u>5/9/11</u> County: <u>Mercer</u> State: <u>NJ</u>
--	--

Do Normal Circumstances exist on the site?      Yes <b>No</b> Is the site significantly disturbed (Atypical Situation)      Yes <b>No</b> Is the area a potential Problem Area?      Yes <b>No</b> (if needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: <u>F10 up</u>
--	---

**VEGETATION**

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1.	<i>Allium vineale</i>	Herb	FACU-	9.			
2.	<i>Ranunculus ficaria</i>	Herb	N/A	10.			
3.	<i>Calytonia virginica</i>	Herb	FACU	11.			
4.	<i>Platanus occidentalis</i>	Tree	FACW-	12.			
5.				13.			
6.				14.			
7.				15.			
8.				16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) 25%

Remarks:

**HYDROLOGY**

Recorded Data (Describe in Remarks):  
      Stream, Lake or Tide Gauge  
      Aerial Photographs  
      Other  
  
 No Recorded Data Available

Field Observations:  
 Depth of Surface Water: \_\_\_\_\_ (in.)  
 Depth to Free Water in Pit: \_\_\_\_\_ (in.)  
 Depth to Saturated Soil: \_\_\_\_\_ (in.)

Wetland Hydrology Indicators:

Primary Indicators:

- Inundated
- Saturated in Upper 12 inches
- Water Marks
- Drift Lines
- Sediment Deposits
- Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):

- Oxidized Root Channels in Upper 12 inches
- Water-Stained Leaves
- Local Soil Survey Data
- FAC-Neutral Test
- Other (Explain in Remarks)

Remarks:

# SOILS

MAP Unit Name (Series and Phase): <u>Penn channery silt loam</u>	Drainage Class: <u>well drained</u> Field Observations Confirm Mapped Type? Yes No
Taxonomy (Subgroup): _____	

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
1-12		7.5 YR 2.5/3			

Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol<br><input type="checkbox"/> Histic Epipedon<br><input type="checkbox"/> Sulfidic Odor<br><input type="checkbox"/> Aquic Moisture Regime<br><input type="checkbox"/> Reducing Conditions<br><input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Concretions<br><input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils<br><input type="checkbox"/> Organic Streaking in Sandy Soils<br><input type="checkbox"/> Listed on Local Hydric Soils List<br><input type="checkbox"/> Listed on National Hydric Soils List<br><input type="checkbox"/> Other (Explain in Remarks) |
|---|--|

Remarks:

## WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	<b>No</b>
Wetland Hydrology Present?	Yes	<b>No</b>
Hydric Soils Present?	Yes	<b>No</b>
Is this sampling Point within a wetland?	Yes	<b>No</b>

Remarks:



## SOILS

MAP Unit Name

(Series and Phase): Penn channery silt loam

Drainage Class: well drained

Field Observations

Taxonomy (Subgroup): \_\_\_\_\_

Confirm Mapped Type? Yes No

### Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
1-12		7.5 YR 2.5/3			

### Hydric Soil Indicators:

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol                    | <input type="checkbox"/> Concretions  |
| <input type="checkbox"/> Histic Epipedon             | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor               | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime       | <input type="checkbox"/> Listed on Local Hydric Soils List                    |
| <input type="checkbox"/> Reducing Conditions         | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks:

## WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<b>Yes</b>	No
Wetland Hydrology Present?	<b>Yes</b>	No
Hydric Soils Present?	Yes	No
Is this sampling Point within a wetland?	<b>Yes</b>	No

Remarks:



## SOILS

MAP Unit Name (Series and Phase): <u>Penn channery silt loam</u>	Drainage Class: <u>well drained</u> Field Observations Confirm Mapped Type? Yes No
Taxonomy (Subgroup): _____	

### Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
1-12		7.5 YR 2.5/3			

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol<br><input type="checkbox"/> Histic Epipedon<br><input type="checkbox"/> Sulfidic Odor<br><input type="checkbox"/> Aquic Moisture Regime<br><input type="checkbox"/> Reducing Conditions<br><input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Concretions<br><input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils<br><input type="checkbox"/> Organic Streaking in Sandy Soils<br><input type="checkbox"/> Listed on Local Hydric Soils List<br><input type="checkbox"/> Listed on National Hydric Soils List<br><input type="checkbox"/> Other (Explain in Remarks) |
|---|--|

Remarks:

## WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<b>Yes</b>	No
Wetland Hydrology Present?	<b>Yes</b>	No
Hydric Soils Present?	Yes	No
Is this sampling Point within a wetland?	<b>Yes</b>	No

Remarks:



## SOILS

MAP Unit Name (Series and Phase): <u>Penn channery silt loam</u>	Drainage Class: <u>well drained</u> Field Observations Confirm Mapped Type? Yes No
Taxonomy (Subgroup): _____	

### Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
1-12		7.5 YR 2.5/3			

### Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol<br><input type="checkbox"/> Histic Epipedon<br><input type="checkbox"/> Sulfidic Odor<br><input type="checkbox"/> Aquic Moisture Regime<br><input type="checkbox"/> Reducing Conditions<br><input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Concretions<br><input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils<br><input type="checkbox"/> Organic Streaking in Sandy Soils<br><input type="checkbox"/> Listed on Local Hydric Soils List<br><input type="checkbox"/> Listed on National Hydric Soils List<br><input type="checkbox"/> Other (Explain in Remarks) |
|---|--|

Remarks:

## WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	No
Wetland Hydrology Present?	Yes	No
Hydric Soils Present?	Yes	No
Is this sampling Point within a wetland?	Yes	No

Remarks:

**APPENDIX E**

**ALTERNATIVE ANALYSIS**

## **Alternative Analysis for the Reconstruction of County Bridges – Bear Tavern Road (Cr 579) Bridge #214.2 Over Jacobs Creek & Jacobs Creek Road Bridge #4-215.1 Over Ewing Creek**

### **PROJECT BACKGROUND**

This project is being proposed by Mercer County and is predicated on a previous study performed by the County. Replacement of the Jacobs Creek Bridge and realignment of Bear Tavern Road (BTR) has been investigated by the County for over 40 years. Right of way for the new roadway alignment was purchased in the mid 1960's. A recent study investigated numerous bridge and alignment alternatives for the Jacobs Creek Bridge crossing which were compiled in a Historic Alternative Analysis Report prepared by Keller & Kirkpatrick of Morris Plains, dated April 2009. The report recommended Alternative 5A/5B, the realignment of BTR and construction of a new parallel bridge over Jacobs Creek and rehabilitation of the existing historic bridge.

The project proposes to replace two existing bridges that carry County Route 579 (Bear Tavern Road) over Jacobs Creek and Jacobs Creek Road (JCR) over Ewing Creek. Both bridges have been deemed functionally obsolete, and the Jacobs Creek Bridge structurally deficient based on recent bridge inspections. The Jacob's Creek Bridge is currently closed to motor vehicles due to its serious structural condition. The roadway has been closed to traffic since 2009 and a detour is currently in place.

The Jacobs Creek Bridge incurred significant foundation damages due to flooding associated with Hurricane Irene in August, 2011. Flood damage included undermining and scouring around the bridge abutments and wingwalls that resulted in failure of portions of the wingwalls and rotation of the bridge abutments. The damage jeopardized the stability of the truss and the potential loss of the bridge superstructure. A structural inspection of the bridge warranted the issuance of a Priority E letter to the County which recommended emergency dismantling of the truss for preservation and safety purposes.

A meeting with representatives of NJDEP including the State Historic Preservation Office (SHPO) was conducted on Tuesday, September 13<sup>th</sup> at which concurrence of dismantling was granted by the Department. The dismantling of the bridge is currently on-going. Upon its dismantling the bridge will be cleaned, a protective coat added and stored for future reuse. It is the intent of this project to rehabilitate the existing historically eligible Bridge over Jacobs Creek and relocate the bridge to Howell Living Farm (HLF); a Mercer County owned working farm/park. The HLM property lies within a National and State listed Historic District known as the Pleasant Valley Historic District (PVHD). The proposed bridge will service the park, serve in an educational capacity, and be used for pedestrian and non-motor vehicle purposes along the PVHD Wagon Tour conducted throughout the HLF and adjacent properties.

The proposed project will realign BTR such that it will be the primary through movement and its intersection with JCR reconfigured such that JCR forms a T-Intersection and becomes the stop condition. Under the current configuration vehicle traveling north on BTR must turn left to continue to travel north on BTR. The new alignment will utilize a substandard radius curve to minimize impacts to surrounding resources and will require a design exception.

Based on feedback obtained at a pre-application conference with NJDEP in June 2011, the roadway alignment was modified by shifting the originally proposed alignment to the east in an effort to reduce impacts to wetlands, open waters, the riparian zone and the potential historic landscape associated with

the Jacobs Creek crossing. The new alignment shift will conflict with the existing historic bridge warranting its relocation while maintaining the operational integrity and safety of making BTR the primary through movement. The project also proposes the reconstruction of a five hundred linear foot stone masonry wall along the east side of BTR north of the Jacobs Creek Bridge. Portions of this wall will be repaired and restored. Several sections of the existing wall have collapsed into an adjacent tributary to Jacobs Creek. The project will require the construction of new retaining walls at various locations including on the bridge approaches. The wall locations will reduce impacts to adjoining properties, environmental and cultural resources. New stormwater pipes, inlets and outfalls are required to properly drain the roadway, as well as new basins installed to comply with regulatory rules and requirements. It is the intention of this job to implement aesthetic treatments on new walls and bridges which will likely result in stone clad exposed surfaces. Final aesthetic treatments and historical mitigations will be coordinated with the SHPO. A draft application to the New Jersey Historic Sites Council (HSC) was recently submitted by others entitled "BTR/ Jacob's Creek Crossing Rural Historic District" for listing on the New Jersey Register of Historic Places Act under N.J.A.C. 7:4. The proposed application was approved at the September 2011 State Board meeting. The proposed district will encompass a significant portion of the project area that includes the Jacobs and Ewing Creek Bridges and the existing stone masonry wall along Bear Tavern Road. As a result, the proposed actions will require the completion of an "Application for Project Authorization" from the State Review Board.

### **PROJECT PURPOSE AND NEED**

The purpose of this project is to replace the two deficient bridges along Bear Tavern and Jacobs Creek Road, as well as to reconfigure the roadway alignment to improve safety and traffic operations through the project site. Based on a recent bridge inspection report, both the Mercer County Bridge #214.2 which carries BTR over Jacobs Creek and Mercer County Bridge 4-215.1 which carries JCR over Ewing Creek are structural deficient and functionally obsolete. The BTR Bridge is a 70-foot span pin-connected Pratt Truss built in 1882 which spans Jacobs Creek. The SHPO issued an opinion in 1991 that the BTR Bridge is eligible to be listed in the National Register of Historic Places. The JCR Bridge is 41-foot span steel girder bridge built in 1926 which spans Ewing Creek. Both structures are supported on stone masonry abutments and neither bridge provides an adequate sidewalk for pedestrian use. As a result of these defects, replacement of both Bridges is recommended.

The existing project site poses several traffic operation and safety concerns. BTR will be re-aligned to make it the primary thru movement and reconfigure JCR to intersect BTR as a stop control. This reconfiguration of the roadway is recommended based on accident data which included numerous rear-end accident which are above statewide averages. These accident types can be attributed the current road configuration. In addition, the existing intersection configuration poses safety concerns since the prevailing traffic movement, at a ratio of approximately 9:1 wishes to continue north and south along BTR, resulting in traffic conflicts looking to turn left and right at the intersection. This coupled with the future plans of the Janssen Pharmaceutical corporate campus will further exacerbate the problem. In addition the existing roadway will be widened slightly to include 4-foot shoulders which will improve bicycle and pedestrian compatibility of the roadway. The roadway currently provides little or no shoulder and accommodations for alternate modes of transportation.

In conclusion it is the goal and intent of this project to replace to both structurally deficient bridges to meet current AASHTO Load and Resistance Factor Design standards, improve safety and traffic operations along BTR and JCR and their intersection, salvage and rehabilitate the existing historic truss bridge, and relocate the bridge to HLF where it can be preserved and maintain its functional use. Safety and traffic operation improvements include realigning BTR so it is the primary thru movement to accommodate the prevailing traffic pattern, reconfiguring the intersection of BTR and JCR, installation of shoulders, proper signing and striping and upgrading of roadside design treatments. Measures to minimize impacts to environmental and cultural resources within the project area will be implemented without jeopardizing the project purpose and need. In addition, consultation with the SHPO and other project stakeholders in the execution of the project and incorporating aesthetic treatments and historic mitigation into the proposed design will be considered.

### ALTERNATIVE ANALYSIS

In order to achieve the project’s purpose and need the following key project elements are proposed and each alternative is evaluated with regards to these elements:

Project Element	Purpose and Need Requirement Achieved
Replacement of the existing Jacob’s Creek and Ewing Creek bridges	Eliminate structural and functional defects
Realigned Bear Tavern Road to the west of the existing Jacobs Creek crossing at Bridge 214.2	Operational and safety improvements
Add new un-signalized T-intersection with Jacobs Creek Road to allow the primary through movement along Bear Tavern Road	Operational and safety improvements
Provide 4-foot wide shoulders in each direction along Bear Tavern Road	Operational and safety improvements
Reconstruct the existing stone wall along the east side of Bear Tavern Road	Structural defects and safety
Design project to minimize impacts to the surroundings historic resources, and environmentally sensitive areas	<ul style="list-style-type: none"> <li>• Provide for treatment of the Jacob’s Creek Bridge and area that is consistent with the <i>Secretary of the Interior’s Standards for the Treatment of Historic Properties, Standards for Rehabilitation.</i></li> <li>• Minimize resource impacts to maximum extent practicable.</li> </ul>

A comprehensive analysis was conducted as part of the previously noted 2009 Historic Bridge Alternative Analysis by the County which is included as an appendix to provide for a review of all alternatives considered. Based on the 2009 analysis Alternative 5A/B – Modified 3 was recommended as the initially preferred alternative and was advanced into design and permitting. It should be noted that during the 2009 analysis, the Historic District within the project area was not conceived or considered in this analysis. Based on feedback received from the June 2011 Pre-Application conference, a recommendation was made by the SHPO to consider impacts to this district in our future analysis.

For this analysis, four alternatives were considered and evaluated for selection as the preferred alternative. The preferred alternative is being advanced for environmental permits. The following alternative analysis discussion shows how the proposed project on the selected alignment meets the requirements at NJAC 7:7A-7.2(b)1 in that there is no practical alternative that would have less adverse impact or that would not generate other significant adverse environmental consequences.

### **No-Build Alternative**

Under this alternative, the existing roadway would remain closed and bridges would remain the same. Specifically, the historically eligible bridge over Jacobs Creek would remain dismantled, while the bridge over Ewing Creek would remain functionally obsolete due to having sub-standard deck geometry that carries 2 lanes of traffic. As such, impacts to wetlands, wetland transition areas and State open waters; increased impervious cover and potential effects to the historic fabric of the bridge would be avoided. However, this alternative does not meet the project purpose and need, and the historic fabric and integrity of the bridge would not be mitigated because it would remain dismantled and not rehabilitated; therefore, this is not a feasible alternative.

### **Build Alternatives**

Three build alternatives were evaluated that meet the project's purpose and need. They are as follows:

- Alternative 3B – Modified Rehabilitation and Replacement
- Alternative 5A/B – Modified 3 (Rehabilitation of existing bridge for pedestrian use)
- Alternative 5A/B – Modified 2 (Relocation of existing bridge for pedestrian use)—Preferred Alternative

For all three build alternatives the Ewing Creek Bridge would essentially be replaced in the footprint of the existing bridge with only minor widening. The existing bridge over Ewing Creek is 28 feet wide curb-to-curb (30.8 feet wide out-to-out). The proposed replacement bridge will accommodate two 11-foot lanes of through traffic and two 4-foot wide shoulders for a final curb-to-curb width of 30 feet. The new bridge also includes a 5-foot wide sidewalk on the west side and two 2-foot wide parapets for a total out-to-out bridge width of 39 feet.

The existing approach roadway width is approximately 28 feet and the proposed approach roadway width is 30 feet. The proposed bridge is wider than the existing bridge and the existing approach roadway due to the fact that the existing bridge does not provide a sidewalk or the additional shoulder width as previously mentioned under the Jacobs Creek Bridge which will improve safety and provide a refuge area for pedestrians and bicyclists. The existing bridge is classified as functionally obsolete due to the inadequate deck geometry. Standard NJDOT Class A concrete approach slabs will be used on both bridge approaches. The precast structure will be supported on reinforced concrete cast in place pedestals founded on spread footings. Cofferdams and dewatering will be required for construction of the cast in place concrete foundations. Cast in place concrete cantilever retaining walls with spread footings will be provided on all 4 corners of the structure. Exposed components of parapets and substructure units will be covered with approved fieldstone facing with limestone caps.

Final aesthetic treatments will be coordinate with the SHPO. The replacement of the Ewing Creek Bridge, which has been identified as a contributing resource within the proposed Bear Tavern Road/Jacob's Creek Crossing Historic District (BTR/JCCHD), would be considered an adverse effect

with regard to the historic district. The adverse effect would be mitigated in part by the construction of a new bridge span which is compatible with the historic character of the BTR/JCCHD.

For analysis purposes the area of the roadway realignment, Jacobs Creek Bridge crossing and retaining walls will vary for the three build alternatives which are discussed in more detail below.

### **Alternative 3B – Modified Rehabilitation and Replacement**

Under this alternative (Figure 1/Plate No. 16, Page 53 of 2009 Historic Alternative Analysis Report) the Jacob's Creek Bridge is rehabilitated to H15 capacity loading, per AASHTO guidelines for bridges to remain in place. The existing truss bridge would be removed and rehabilitated. A new two-span bridge (new stringers and new bridge deck) would replace the structural element of the crossing. The rehabilitated trusses would then be remounted as refurbished, non-load carrying trusses as an aesthetic façade to the replacement bridge. The approach roadway would be reconstructed and widened to accommodate a 28' wide roadway. The proposed bridge and approach roadway would feature 11' lanes and 3' shoulders. The existing stone masonry abutments and wingwalls would be reconstructed and widened. A new center pier would be constructed to maintain a shallow bridge member profile. The existing stone masonry retaining wall along the northern embankment of Bear Tavern Road west of the truss bridge would be repaired.

This option would preserve a considerable measure of the historic fabric of the Jacobs Creek Bridge and its integrity of location. However, the widening of the bridge deck could alter the character defining features of the bridge. Cultural resource surveys undertaken in connection with this project have identified the possible alignment of a segment of an 18<sup>th</sup>-century roadway on the northwest bank of Jacob's Creek. This route led to a ford to the west of and downstream from the current bridge. This alternative will involve protective measures to insure that any vestigial evidence of the roadway and the ford will not be compromised during construction.

The widening of the Ewing Creek Bridge, which has been identified as a contributing resource within the BTR/JCCHD, would be considered an adverse effect with regard to the potential Historic District. This effect would be mitigated, in part, by the construction of a new, widened span which is compatible with the historic character of the BTR/JCCHD in design, materials, color, texture, massing and size.

The existing stone masonry retaining wall along the northern embankment of Bear Tavern Road west of the bridge, would be repaired in conformance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties, Standards for Rehabilitation*. An additional new retaining wall would be constructed along the new approach roadway to the north/west of the crossing to minimize environmental impacts.

This alternative would also require the construction of a new pier in the open waters of Jacobs Creek which is undesirable. Pier construction in a waterway will impact the stream hydraulics, require on-going maintenance as it will be subject to impacts from floating debris, as well as catch debris that will warrant frequent removal.

As presented in Table 1, this alternative would result in 0.036 acre impact to State Open Waters (SOW) only; however, it would require extensive rehabilitation in order to be compliant with the *Secretary of the Interior's Standards* which is may be considered cost prohibitive.

For this alternative, the rehabilitated Jacob's Creek Bridge for vehicle use would not address the operational and safety needs of the project such as allowing Bear Tavern Road to have the primary through movement and providing an exclusive left-turn slot; has a substantially high cost of repair, and will significantly impact the historic nature of the bridge. The historic value of the bridge would be altered because the bridge is in such a deteriorated state, approximately 90% of the original bridge would need to be replaced. Therefore, this alternative is not viable.

**Alternative 5A/B – Modified 3 (Rehabilitation of existing bridge for pedestrian use)**

Under this alternative (Figure 2/Plate 29, Page 77 of 2009 Historic Alternative Analysis Report), the existing Jacobs Creek Bridge would be rehabilitated for pedestrian and bicycle use in accordance with the treatment approaches consistent with the *Secretary of the Interior's Standards for the Treatment of Historic Properties, Standards for Rehabilitation*. A new bridge would be constructed to the west of the existing bridge and will carry two-way traffic with 11ft lanes and 4ft shoulders. The approach roadway would be reconstructed and widened to accommodate a maximum 40ft wide roadway. An exclusive 10-foot left-turn slot for NB traffic destined for Jacob's Creek road is proposed to improve operations and safety (by removing the left-turning vehicles from the through-traffic).

The existing stone masonry abutments and wingwalls would be reconstructed as necessary and the dismantled historic bridge rehabilitated. New abutments and wingwalls would be constructed for the parallel bridge. The existing stone masonry retaining wall along the northern embankment of Bear Tavern Road west of the bridge would be repaired and areas that have failed reconstructed. An additional new retaining wall would be constructed along the new approach roadway to the north/west of the crossing.

Under the replacement alternative, the new bridge Jacob's Creek Bridge would be built to the west of the existing crossing. It will have two 11-foot wide lanes, one 10-foot wide left-turn lane, two 4 foot wide shoulders, a 5 foot wide sidewalk on the west side, and two 2 foot parapets. The total structure width will be 49 feet out to out. The structure will contain a reinforced high performance concrete deck on a super-elevated grade. Standard NJDOT concrete approach slabs will be used on both bridge approaches. The superstructure will be supported on full height reinforced concrete abutments and spread foundations. Cast in place concrete cantilever retaining walls with spread footings will be provided on all 4 corners of the structure. Cofferdams and dewatering will be required for construction of the cast in place concrete foundations Ornamental pylons will be provided on all 4 corners of the bridge structure. Exposed components of parapets and substructure units will be covered with approved sandstone facing with limestone caps. Final aesthetics and final mitigation measures will be coordinated with the SHPO.

This alternative meets all the operational and safety needs of the project, as well as, eliminates all the structural and functional defects, however, as shown on Table 1, it has the greatest impact to aquatic resources including riparian zones. Additionally, waivers from strict compliance with stormwater requirements would be needed for the project due to the increase in net impervious surface (Table 2) and lack of suitable stormwater basin locations.

With regards to the historic fabric of the bridge, this alternative would significantly minimize direct project effects to the physical integrity of the Jacob's Creek Bridge but would notably compromise its integrity of setting and adversely affect the historic character of the BTR/JCCHD through the construction of the new bridge along a parallel alignment. The rehabilitated historically eligible Jacobs Creek Bridge would be maintained at its current location but will serve little functional use except for the occasional pedestrian or bicyclist along the roadway. There are no existing or future plans for multimodal facilities in the area. An advantage of the traffic diversion to the parallel crossing is the bridge would no longer be subject to the constant punishment of serving as a vehicular crossing and exposure to corrosive de-icing material.

The new bridge will likely detract from the historic landscape vista as proposed. Therefore, this alternative was not selected due to significant impacts to environmental and cultural resources, as well as the resulting functional use of the rehabilitated bridge.

**Alternative 5A/B – Modified 2 (Relocation of existing bridge at for pedestrian use)—Preferred Alternative**

Under this alternative (As represented on submitted permit plans and Figure 3/Plate 28, Page 76 of 2009 Historic Alternative Analysis Report), the existing Jacob's Creek Bridge would be relocated and rehabilitated to the Howell Living Farm, a Mercer County Park in Hopewell Township where it will be functional and serve for non-motor vehicle use only on the Pleasant Valley Historic Trail. This alternative will provide the following:

- Construct new single span bridges over Jacobs and Ewing Creek;
- Construct dedicated left-turning lane;
- Realign Bear Tavern and Jacob's Creek Roads on a similar alignment;
- Reconfigure the intersection such that Jacobs Creek Road will form a T-Type terminate intersection with Bear Tavern Road via stop control and Bear Tavern Road will have the predominant through movement;
- Designed for a speed of 40 mph to maintain the posted speed of 35 mph;
- Install warning signs for 30 mph curve and implement other safety devices to inform the motorists of the substandard horizontal radius; and
- Where possible, the existing pavement areas will be milled and overlaid to limit the project disturbances.

The existing bridge over Jacobs Creek is 16 feet wide curb-to-curb (16.7 feet wide out-to-out). The proposed replacement bridge will accommodate two 11-foot lanes of through traffic and one 10-foot left turn lane which are the minimum widths for the roadway AASHTO classification as an urban arterial. The project also proposes two 4-foot wide shoulders in each direction to provide a refuge area for pedestrian and bicyclists. In accordance with AASTHO Guide for the Development of Bicycle Facilities, the 4-foot shoulder provides a compatibility classification. The natural and rural setting of the project and surrounding area are favorable for bicyclist use. The 10-foot left turn lane is proposed for safety reasons as a refuge for turning vehicles on the substandard horizontal curve. The final curb-to-curb width of the roadway is 40 feet on the Jacobs Creek Bridge approaches. The Jacobs Creek Bridge also includes a 5-

foot wide sidewalk on the south side and two 2-foot wide parapets for a total out-to-out bridge width of 49 feet.

The existing approach roadway width is approximately 26 feet and provides no shoulder or refuge area for other modes of transportation, and likely detracts from these other uses due to discomfort and safety concerns. There are also no convenient areas for vehicles to pull-off during emergencies or breakdown situations. The current roadway width also restricts public access to Jacobs Creek in the project area. The proposed approach roadway width is a maximum of 40 feet; however, transitions down to 30 feet as the left turn lane transitions out. The proposed bridge is wider than the existing bridge as the existing bridge only provided a one-lane/two-way traffic lane, causing safety concern for motorists and has contributed to numerous accidents including sideswipes many of which go unreported. There is currently no sidewalk on the bridge which makes pedestrian use extremely unsafe. Per AASHTO and NBIS standards the existing bridge is classified as functionally obsolete due to the inadequate deck geometry.

This alignment greatly avoids environmental resources, consistent with N.J.A.C. 7:7A-7.2, while still meeting the project's purpose and need. As discussed in the previous sections of this document, rehabilitation of the existing bridge does not meet the purpose and need of the project. As shown in Table 1, this alignment will not have a significant impact on the surrounding ecosystem. It will also have little to no effect on surrounding wildlife habitat, surface or groundwater quality, nor will it alter or impair the Jacobs Creek aquatic system.

Because the alignment will utilize areas now encompassed by the existing roadway and bridge, it would require the relocation of the existing historically eligible bridge which will be rehabilitation and reassembly at Howell Living Farm. The bridge would be for pedestrian use and integrated into the Farms planned Pleasant Valley Rural Historic District Wagon Tour (Figure included at the end of report). Some historic components of the Jacob's Creek Bridge would require replacement or strengthened during the rehabilitation process, but for pedestrian as opposed to current vehicular design loading standards. This will significantly reduce the member strengthen and allow for maintaining the original structural integrity of the bridge. Stonework from the existing abutments would be salvaged and reused in the creation of the supports for the bridge in its new location. The bridge would also serve in a functional capacity as originally intended thus maintaining the historic fabric of the bridge. The new bridge location would also avoid the constant punishment of serving as a vehicular crossing and exposure to corrosive de-icing material.

Overall, the negative impact of the necessary replacement of historic bridge fabric during the rehabilitation process would be more than offset by the positive result of the rehabilitation and preservation of the bridge truss. However, given the loss of the bridge's integrity of location, the qualities that qualify the bridge for listing in the National Register of Historic Places would be notably diminished.

The proposed adjustments to the alignments of Bear Tavern Road and Jacob's Creek Road within the project corridor although minor would alter the historic character of the potential BTR/JCCHD and would also constitute an adverse effect on these resources, but will be less significant than a new parallel alignment.

Of the three build alternatives considered above, as well as those studied under the 2009 Historic Alternative Analysis Report, it is our opinion that this alternative is the most advantageous for the following reasons.

- Meets the project purpose and need;
- Minimize impacts to the surrounding environment and historic resources of the off-line alternatives considered;
- Will have the least impact to the historic integrity and functional use of the historically eligible Jacobs Creek bridge;
- Will provide a public benefit to the Howell Living Farm park in a functional capacity;
- Will have least harm to surrounding wetlands, floodplain, riparian zone and ecology of the other offline alternatives while essentially maintaining the footprint of the existing roadway;
- Will be less costly than other alternatives when considering long term maintenance / life cycle costs.
- Will provide a functional and safe transportation system for all modes of travel, as well as improve access to the historic landscape.

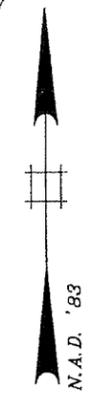
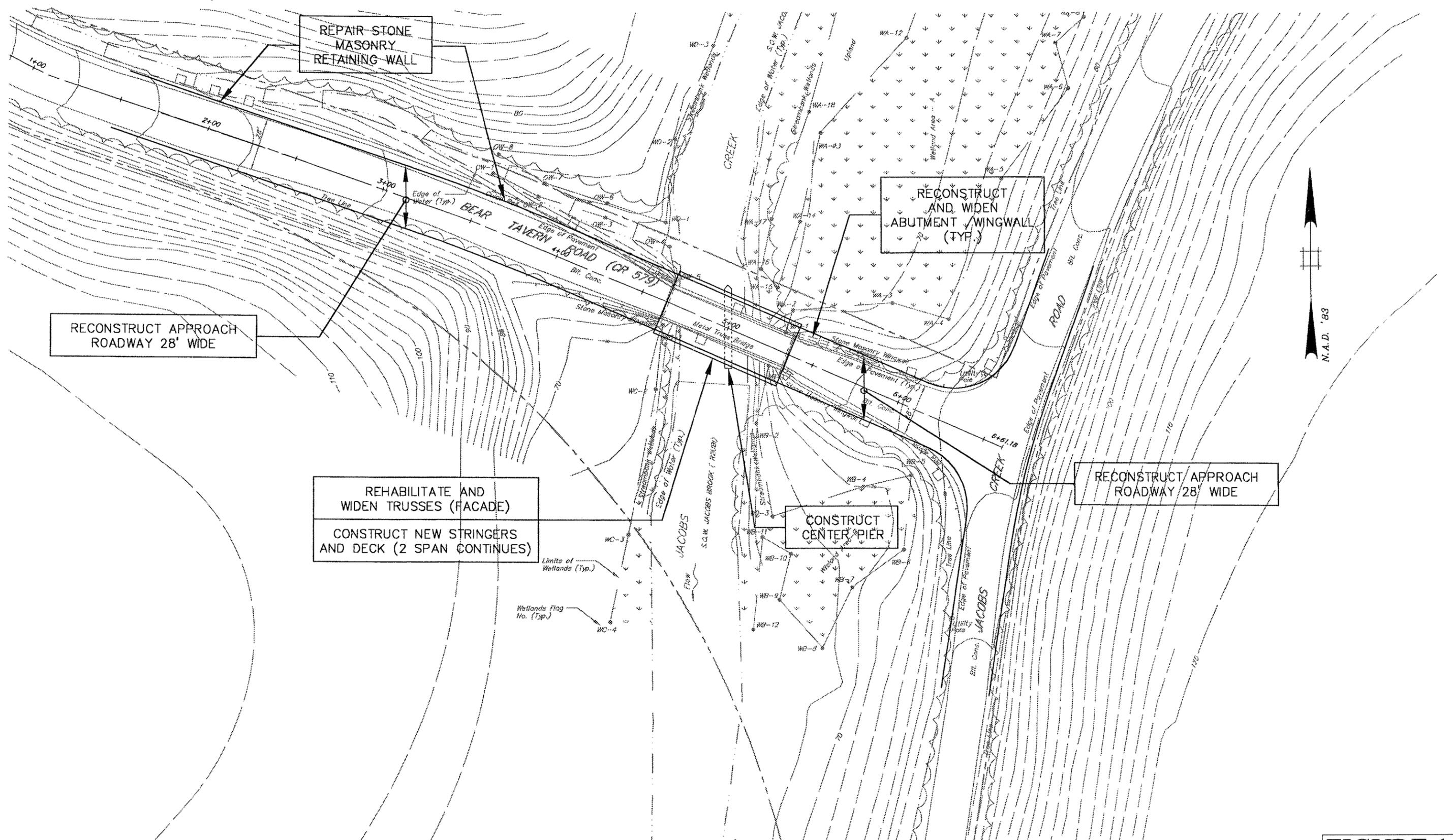
**Table 1. Environmental Resource Impact Matrix**

Alternative	SOW (ft <sup>2</sup> /acres)		Wetlands (ft <sup>2</sup> /acres)		Wetlands Transition Area (ft <sup>2</sup> /acres)		Riparian Zone (ft <sup>2</sup> /acres)
	<i>Temp</i>	<i>Perm.</i>	<i>Temp</i>	<i>Perm.</i>	<i>Temp</i>	<i>Perm.</i>	
No-Build	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alternative 3B – Modified Replacement	0.0	1,550/0.036	0.0	0.0	0.0	280.00/0.006	1,500/0.034
Alternative 5A/B – Modified 3	2,300/0.053	5,000/0.115	0/0.000	600/0.014	1,500/0.034	6,700/0.154	15,500/0.36
Alternative 5A/B – Modified 2 (IPA)	2,485/0.057	2,264/0.052	189/0.004	2,472/0.057	2,298/0.053	7,475/0.172	10,965/0.25

**Table 2. Net Impervious Coverage**

Alternative	Net Impervious (ft <sup>2</sup> /acres)
No-Build	0.0
Alternative 3B – Modified Replacement	3,300/0.08
Alternative 5A/B – Modified 3	11,000/0.25
Alternative 5A/B – Modified 2 (IPA)	6,530/0.15

W:\2005088\DWG\DSGNDWG\PLN-ALT3B (XREF: BEAR-D)



PLAN

SCALE: 1"=50'

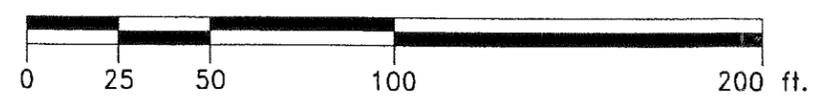
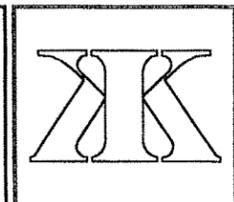


FIGURE 1

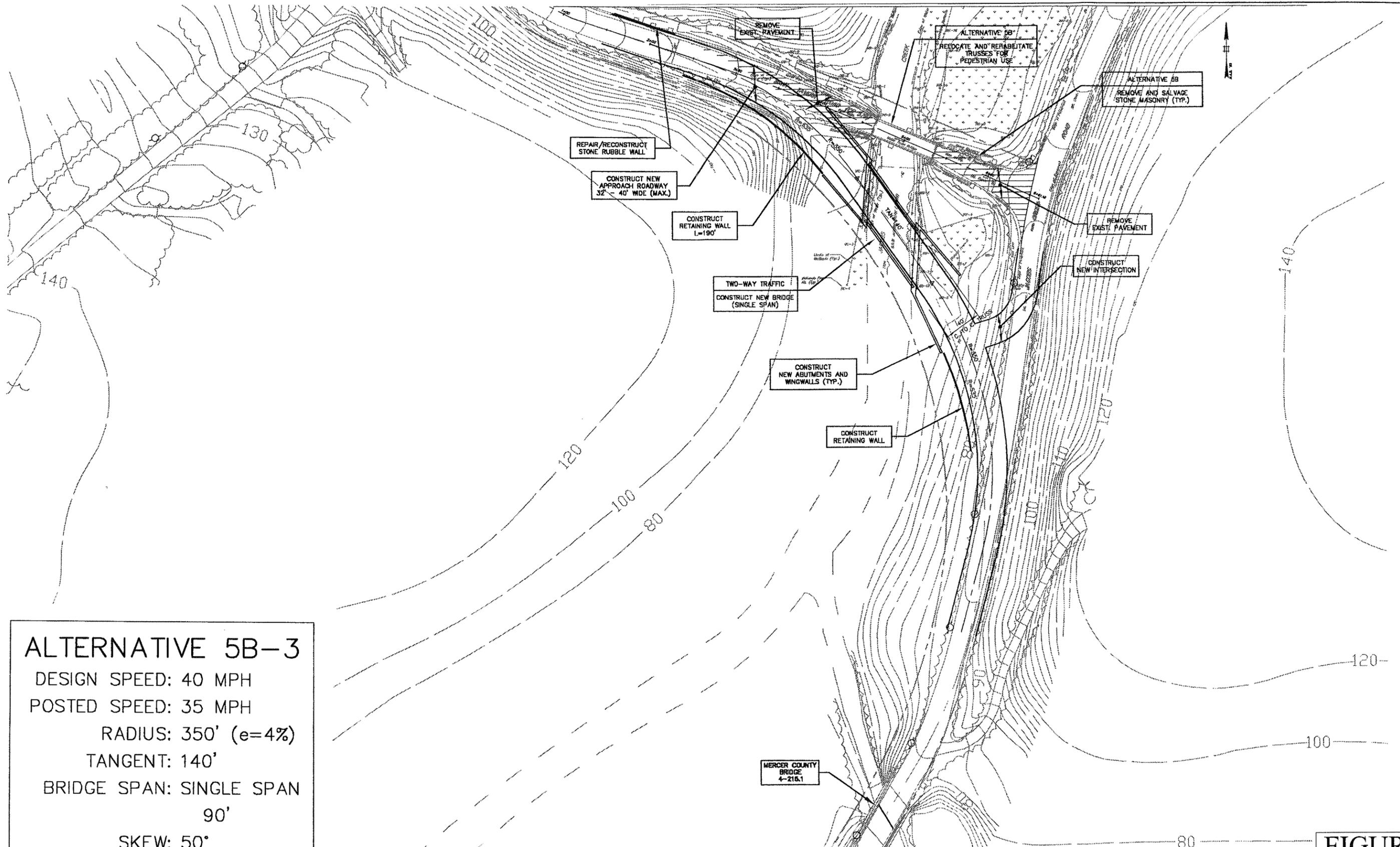
**Keller & Kirkpatrick**  
 301 Gibraltar Drive, Suite 2A  
 Morris Plains, NJ, 07950  
 973-377-8500  
 Certificate of Authorization  
 #24GA28037400  
 CONSULTING ENGINEERS LAND SURVEYORS      LANDSCAPE ARCHITECTS PLANNERS



HISTORIC BRIDGE ALTERNATIVES ANALYSIS  
 MERCER COUNTY BRIDGE No. 214.2  
 BEAR TAVERN ROAD OVER JACOB'S CREEK  
 TOWNSHIP OF HOPEWELL, MERCER COUNTY  
 ALTERNATIVE 3B  
 PLAN

PLATE  
 No. 16

W:\2005088\DWG\DSGNDWG\PLN-5B90M-BROKE (XREF: BEAR-D/P-BEAR535F90)



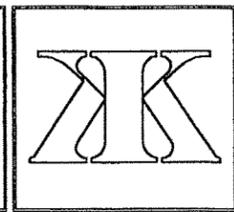
**ALTERNATIVE 5B-3**  
 DESIGN SPEED: 40 MPH  
 POSTED SPEED: 35 MPH  
 RADIUS: 350' (e=4%)  
 TANGENT: 140'  
 BRIDGE SPAN: SINGLE SPAN  
 90'  
 SKEW: 50°  
 WIDTH: 40' (C. TO C. TRUSS)

REVISED SPAN AND WIDTH  
RAD./TANGENT/RAD. ALIGNMENT

**PLAN**  
SCALE: 1"=100'

**FIGURE 2**

**Keller & Kirkpatrick**  
 301 Gibraltar Drive, Suite 2A  
 Morris Plains, NJ, 07950  
 973-377-8500  
 Certificate of Authorization  
 #24GA28037400  
 CONSULTING ENGINEERS LAND SURVEYORS      LANDSCAPE ARCHITECTS PLANNERS



HISTORIC BRIDGE ALTERNATIVES ANALYSIS  
 MERCER COUNTY BRIDGE No. 214.2  
 BEAR TAVERN ROAD OVER JACOB'S CREEK  
 TOWNSHIP OF HOPEWELL, MERCER COUNTY  
 ALTERNATIVE 5A/5B  
 MODIFIED 3

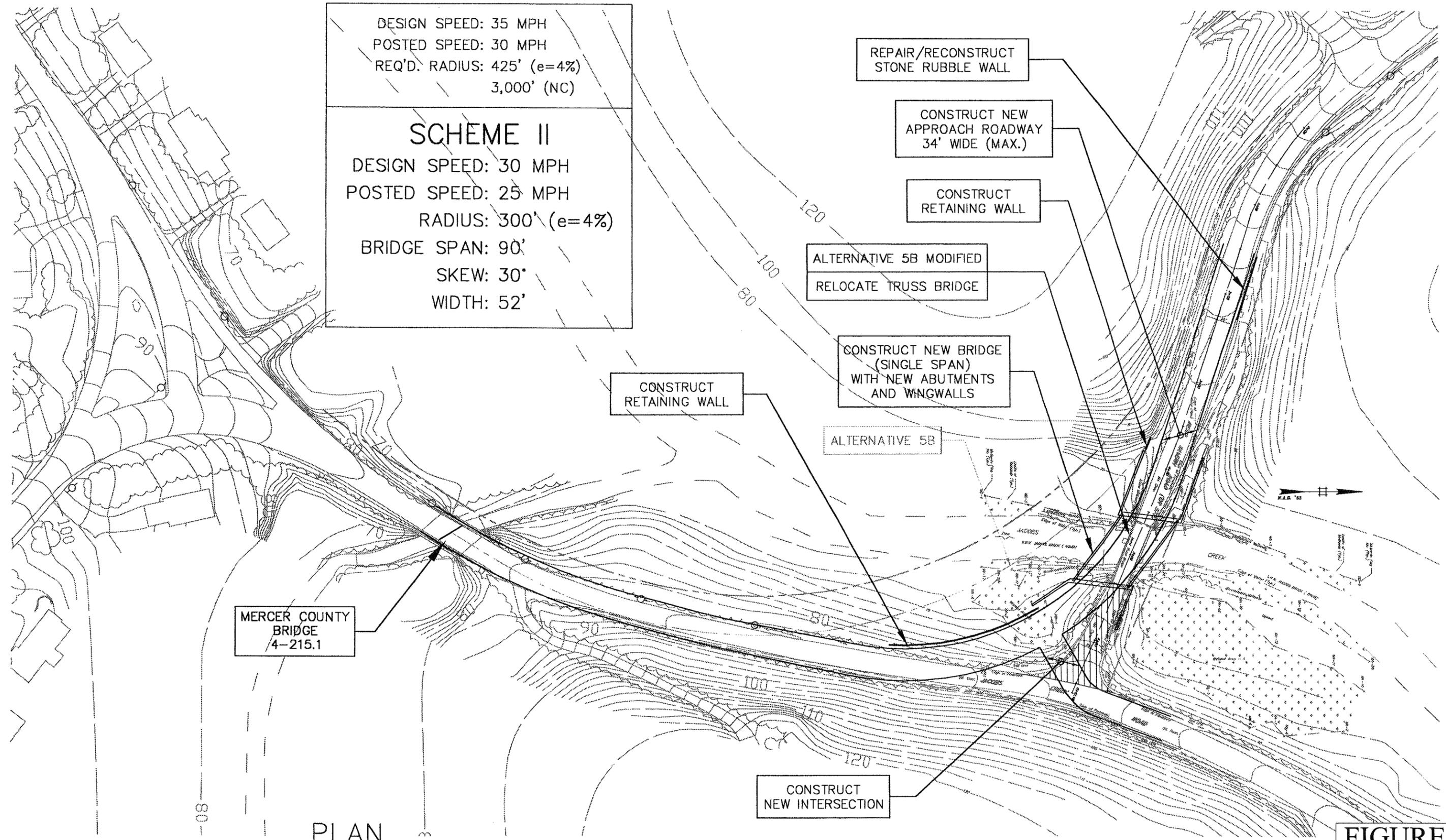
**PLATE**  
**No. 29**

w:\2005088\DWG\DSGNDWG\PLN-0-ALT5BMOD (XREF: BEAR-D)

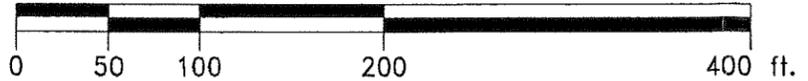
DESIGN SPEED: 35 MPH  
 POSTED SPEED: 30 MPH  
 REQ'D. RADIUS: 425' (e=4%)  
 3,000' (NC)

---

**SCHEME II**  
 DESIGN SPEED: 30 MPH  
 POSTED SPEED: 25 MPH  
 RADIUS: 300' (e=4%)  
 BRIDGE SPAN: 90'  
 SKEW: 30°  
 WIDTH: 52'

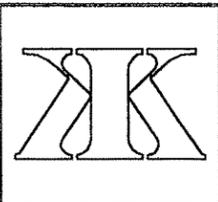


**PLAN**  
 SCALE: 1"=100'



**FIGURE 3**

**Keller & Kirkpatrick**  
 301 Gibraltar Drive, Suite 2A  
 Morris Plains, NJ, 07950  
 973-377-8500  
 Certificate of Authorization  
 #24GA28037400  
 CONSULTING ENGINEERS LAND SURVEYORS  
 LANDSCAPE ARCHITECTS PLANNERS



HISTORIC BRIDGE ALTERNATIVES ANALYSIS  
 MERCER COUNTY BRIDGE No. 214.2  
 BEAR TAVERN ROAD OVER JACOB'S CREEK  
 TOWNSHIP OF HOPEWELL, MERCER COUNTY  
 ALTERNATIVE 5A/5B  
 MODIFIED 2

**PLATE**  
**No. 28**

**APPENDIX F**

**MUNICIPAL OFFICIALS & LIST OF ADJACENT PROPERTY  
OWNERS WITHIN 200FT**

## Agency Notifications for Freshwater Wetlands Individual Permit

### Mercer County

<p style="text-align: center;">Mercer County Clerk Paula Sollami-Covello Mercer County Administration Building 640 South Broad Street P.O. Box 8068 Trenton, NJ 08650-0068</p>	<p style="text-align: center;">Mercer County Mosquito Control Ary Farajollahi, Superintendent Mercer County Administration Building 640 South Broad Street P.O. Box 8068 Trenton, NJ 08650-0068</p>
<p style="text-align: center;">Mercer County Environmental Commission Mercer County Administration Building 640 South Broad Street P.O. Box 8068 Trenton, NJ 08650-0068</p>	<p style="text-align: center;">Mercer County Planning Board Thomas Michael Ryan, Chair Mercer County Administration Building 640 South Broad Street P.O. Box 8068 Trenton, NJ 08650-0068</p>

### Ewing Township

\* Ewing Twp. Municipal Clerk  
Kim Macellaro  
2 Jake Garzio Drive  
Ewing, NJ 08628

Ewing Twp. Environmental Commission  
Lee Farnham, Chair  
2 Jake Garzio Drive  
Ewing, NJ 08628

Ewing Twp. Construction Official  
William Erney, Jr.  
2 Jake Garzio Drive  
Ewing, NJ 08628

Ewing Twp. Planning Board  
2 Jake Garzio Drive  
Ewing, NJ 08628

### Hopewell Township

\* Hopewell Twp. Municipal Clerk  
Laurie E. Gompf  
201 Washington Crossing Pennington Rd.  
Titusville, NJ 08560

Hopewell Twp. Environmental Commission  
201 Washington Crossing Pennington Rd.  
Titusville, NJ 08560

Hopewell Twp. Construction Official  
Kevin Oswald  
201 Washington Crossing Pennington Rd.  
Titusville, NJ 08560

Hopewell Twp. Planning Board  
Linda Smith  
201 Washington Crossing Pennington Rd.  
Titusville, NJ 08560

*\*Received full Freshwater Wetlands Individual Permit Application*

93	15.01		93	15.02		93	16	
JAIKARIA NAVDEEP S & BEHROZE N 210 JACOBS CREEK RD TITUSVILLE NJ			VITELLA ANTHONY & MOSNER CATHE 206 JACOBS CREEK RD TITUSVILLE NJ			ODERNALD WILLIAM & SARA M 202 JACOBS CREEK RD TITUSVILLE NJ		
		08560			08560			08560
93	18.01		95	3		98	17	
KROCKER MICHAEL S & MARIA A 2 TODD RIDGE RD TITUSVILLE NJ			KERR RIDGE FARM LLC 1132 BEAR TAVERN RD TITUSVILLE NJ			JANSSEN PHARMACEUTICA C/O S LE PO BOX 200 ATTN TAX DEPT TITUSVILLE NJ		
		08560			08560			08560
98	32		99.01	35		99.01	36.01	
BRANIGAN CYNTHIA & RISSELL CHAR 51 MADDOCK RD TITUSVILLE NJ			BIELAWSKI THADDEUS A & ANNETTE 42 MADDOCK RD TITUSVILLE NJ			COOPER MARY JANE 50 MADDOCK RD TITUSVILLE NJ		
		08560			08560			08560
99.01	36.02		99.01	36.03		99.01	36.04	
KATZ RHONDA W & BROWN ANITA 52 MADDOCK RD TITUSVILLE NJ			WEINSTEIN ERIC & NANCY 46 MADDOCK RD TITUSVILLE NJ			ISON BRYAN N & JOELLEN 48 MADDOCK RD TITUSVILLE NJ		
		08560			08560			08560

**THE TOWNSHIP OF EWING**

Municipal Complex  
2 Jake Garzio Drive  
Ewing, NJ 08628



Page 1 of 1  
Phone: (609) 883-2900

APPLICANT'S NAME: \_\_\_\_\_ ADDRESS: Bear Tavern Road Bridge

SECTION: \_\_\_\_\_ LOTS: \_\_\_\_\_ MAP PAGE: \_\_\_\_\_

**ADJACENT PROPERTY OWNER LIST**

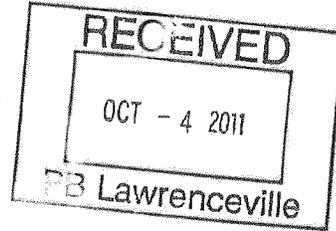
BLOCK: ALL LOT: ALL

Sunoco Pipeline L.P.  
Right of Way Dept.  
Montello Complex  
525 Fritztown Road  
Sinking Spring, PA 19608

Public Service Electric and Gas Company  
Manager - Corporate Properties  
80 Park Plaza, T6B  
Newark, NJ 07102

Mercer County Planning Board  
McDade Administration Building  
640 South Broad Street, PO Box 8068  
Trenton, NJ 08650

Clerk of Ewing Township  
Municipal Complex  
2 Jake Garzio Drive  
Ewing, NJ 08628



AND ALL PROPERTY OWNERS LOCATED WITHIN 200 FEET IN HOPEWELL TOWNSHIP

PROPERTY ID	PROPERTY LOCATION	CLASS	OWNERS NAME & ADDRESS
436 35	110 JACOBS CREEK RD	2	CLARK, VERNON C. UX 110 JACOBS CREEK ROAD EWING, NJ 08628
437 1	117 JACOBS CREEK RD	15F	NEW JERSEY CONSERVATION FOUNDATION 170 LONGVIEW ROAD FAR HILLS, NEW JERSEY 07931
437 7	105 JACOBS CREEK RD	2	STEWART, RACHEL P. & JOHN ROBERT 105 JACOBS CREEK RD EWING NJ 08628.1014
437 8	115 JACOBS CREEK RD	2	PLANTIER PAULA 115 JACOBS CREEK RD EWING, NJ 08628
437 9	113 JACOBS CREEK RD	2	SERVIS, DAVID M. & COLLEEN N. 113 JACOBS CREEK ROAD EWING TWP., NJ 08628
437 10	111 JACOBS CREEK RD	2	GRABE, THOMAS J. & MOIRA D. 111 JACOBS CREEK ROAD EWING, NJ 08628
437 11	107 JACOBS CREEK RD	2	SOMMERVILLE, THOMAS & LAURA 107 JACOBS CREEK RD. EWING, NEW JERSEY 08628
530 3	106 JACOBS CREEK RD	2	WILLIAMS, ARTHUR & SYLVIE 106 JACOBS CREEK RD. EWING, NJ 08628
530 4	1033 BEAR TAVERN RD	2	SCHUSTER, WARREN D. & DONNA L. 1033 BEAR TAVERN RD. EWING, NJ 08628
530 31	1031 BEAR TAVERN RD	2	JOHNSON, JAMES UX 1031 BEAR TAVERN ROAD EWING, NJ 08628
530 32	1025 BEAR TAVERN RD	2	GROSS, EUGENE G. UX 1025 BEAR TAVERN ROAD EWING, NEW JERSEY 08628
530 35	50 LOCHATONG RD	2	SWAYZE JENNIFER M 50 LOCHATONG RD WEST TRENTON NJ 08628
530 36	52 LOCHATONG RD	2	RAVIN, REUEL J. 52 LOCHATONG ROAD EWING NJ 08628
530 57	104 JACOBS CREEK RD	2	ROBINSON RONALD UX 104 JACOBS CREEK ROAD EWING, NJ 08628
530 58	102 JACOBS CREEK RD	2	STOVALL, SAMUEL & KELLY, KEVIN 102 JACOBS CREEK RD EWING, NJ 08628

The undersigned, being the Administrative Officer of the Township of Ewing, as defined in N.J.S.A. 40:55D-3, hereby certifies that the above information constitutes the names and addresses of the owners of all properties within 200 feet of the above referenced property.

Dated: 10/3/11

William G. Erney, Jr.  
Zoning Officer

**APPENDIX G**

**PUBLIC NOTIFICATIONS & NEWSPAPER NOTICE**

**Date:** October 5, 2011

**Re:** Application submitted by: County of Mercer

**Regarding property at:**

Bear Tavern Road over Jacobs and Ewing Creeks  
Ewing and Hopewell Townships, Mercer County

Dear Interested Party:

We are sending you this letter to inform you that the County of Mercer (County) is submitting an application for a permit or approval to the New Jersey Department of Environmental Protection (NJDEP) under the Freshwater Wetlands Protection Act rules, N.J.A.C. 7:7A. The permit or approval will either establish the boundary of freshwater wetlands on the above property, or will authorize the County to conduct regulated activities on the property.

I am applying for the following approval(s):

- Letter of interpretation (establishes the official boundary line of any regulated freshwater wetlands, open waters, or transition areas on the property, and if freshwater wetlands are present, identifies their resource value)
- General permit authorization (authorizes regulated activities, such as construction or development, in wetlands and adjacent transition areas)
- Individual transition area waiver (authorizes regulated activities, such as construction or development, in areas adjacent to wetlands)
- Individual freshwater wetlands permit (authorizes regulated activities, such as construction or development, in both wetlands and adjacent transition areas)
- Open water fill permit (authorizes regulated activities, such as construction or development, in open waters)

The activities for which my application requests NJDEP approval are (I have checked all of those that apply):

- No regulated activities, just establishing where regulated wetlands (if any) are found on my property
- Cutting or clearing of trees and/or other vegetation
- Placement of pavement or other impervious surface
- Placement of one or more buildings or other structures
- Expansion of existing pavement, buildings, or other structures
- Other (describe): \_\_\_\_\_

If you would like to inspect a copy of the application, it is on file at the Municipal Clerk's Office in the town in which the property is located, or you can call the NJDEP at (609) 777-0454 to make an appointment to see the application at NJDEP offices in Trenton during normal business hours.

The rules governing freshwater wetlands permits and approvals are found in the NJDEP's Freshwater Wetlands Protection Act rules at N.J.A.C. 7:7A. You can view or download these rules on the NJDEP Land Use Regulation Program website at [www.state.nj.us/dep/landuse](http://www.state.nj.us/dep/landuse), or you can find a copy of these rules in the county law library in your county courthouse.

As part of the NJDEP's review of the application, NJDEP personnel may visit the property, and the portion of any neighboring property that lies within 150 feet of the property line, to perform a site inspection. This site inspection will involve only a visual inspection and possibly minor soil borings using a 4" diameter hand auger. The inspection will not result in any damage to vegetation or to property improvements.

The NJDEP welcomes any comments you may have on the application. If you wish to comment on the application, comments should be submitted to the NJDEP *in writing* within 30 days after the Department publishes notice of the application in the DEP Bulletin. The Department shall consider all written comments submitted within this time. The Department may, in its discretion, consider comments submitted after this date. Comments cannot be accepted by telephone. Please submit any comments you may have *in writing, along with a copy of this letter*, to:

New Jersey Department of Environmental Protection  
Division of Land Use Regulation  
Mail Code 501-02A  
P.O. Box 420  
Trenton, New Jersey 08625  
Att: Mercer County Section Chief

When the NJDEP has decided whether or not the application qualifies for approval under the Freshwater Wetlands Protection Act rules, NJDEP will notify the municipal clerk of the final decision on the application.

If you have questions about the application, you can contact me at the address below.

Sincerely,



Darren B. Stanker  
Lead Environmental Scientist  
Parsons Brinckerhoff  
2000 Lenox Drive, 3<sup>rd</sup> Floor  
Lawrenceville, NJ 08648

Following is the text of the newspaper notice submitted to the Hopewell Valley News and the Times of Trenton on October 5, 2011. The newspaper notice is scheduled to run in the Thursday, October 13, 2011 edition of each newspaper. Copies of published notices and affidavits of publication will be submitted separately to the NJDEP, upon receipt from each newspaper.

**Date:** October 5, 2011

**Re:** Application submitted by: County of Mercer

**Regarding property at:**

Bear Tavern Road over Jacobs Creek and Jacobs Creek Road over Ewing Creek Townships of Ewing and Hopewell, Mercer County

Dear Interested Party:

TAKE NOTICE that the above entity is applying to the Division of Land Use Regulation at the New Jersey Department of Environmental Protection (NJDEP) for a permit or approval under the Freshwater Wetlands Protection Act rules, N.J.A.C. 7:7A. The permit or approval will either establish the boundary of wetlands on the above property, or will authorize the applicant to conduct regulated activities on the property.

The approval(s) the applicant is requesting is (are):

- Letter of interpretation (establishes the official boundary line of any regulated freshwater wetlands, open waters, or transition areas on the property, and if freshwater wetlands are present, identifies their resource value)
- General permit authorization (authorizes regulated activities, such as construction or development, in wetlands and adjacent transition areas)
- Individual transition area waiver (authorizes regulated activities, such as construction or development, in areas adjacent to wetlands)
- Individual freshwater wetlands permit (authorizes regulated activities, such as construction or development, in both wetlands and adjacent transition areas)
- Open water fill permit (authorizes regulated activities, such as construction or development, in open waters)

The rules governing the above permits and approvals are found in the NJDEP's Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A. You can view or download these rules on the NJDEP Division of Land Use Regulation website at [www.state.nj.us/dep/landuse](http://www.state.nj.us/dep/landuse), or you can find a copy of these rules in the county law library in your county courthouse.

The application requests approval of the following activities (applicant has checked all of those that apply):

- No regulated activities, just establishing where regulated wetlands (if any) are found on my property
- Cutting or clearing of trees and/or other vegetation
- Placement of pavement or other impervious surface
- Placement of one or more buildings or other structures
- Expansion of existing pavement, buildings, or other structures
- Other (describe):

If you would like to inspect a copy of the application, it is on file at the Municipal Clerk's Office, or call the NJDEP at (609) 777-0454 to make an appointment to see the application at NJDEP offices in Trenton during normal business hours.

The NJDEP welcomes any comments you may have on the application. If you wish to comment on the application, comments should be submitted to the NJDEP *in writing* within 30 days after the Department publishes notice of the application in the DEP Bulletin. However, written comments will continue to be accepted until the NJDEP makes a decision on the application. Comments cannot be accepted by telephone. Please submit any comments *in writing, along with a copy of this notice, to:*

New Jersey Department of Environmental Protection  
Division of Land Use Regulation  
Mail Code 501-02A  
P.O. Box 420  
Trenton, New Jersey 08625  
Att: Mercer County Section Chief

When the NJDEP has decided whether or not the application qualifies for approval under the Freshwater Wetlands Protection Act rules, NJDEP will notify the municipal clerk of the final decision on the application.

Questions about the application may be addressed to:

Gregory Sandusky, P.E., P.L.S.  
County Engineer  
Mercer County DOT & I, Division of Engineering  
Room 302, 640 South Broad Street  
Trenton, NJ 08650-0068

7009 0820 0002 3033 1635

U.S. Postal Service  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

**OFFICIAL USE**

Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here  
 LAWRENCEVILLE, N.J. 08648  
 OCT - 6 2011  
 USPS

Sent To: Mercer County Mosquito Control  
 Ary Farajollahi, Superintendent  
 Street, Apt. N or PO Box N: Mercer County Administration Building  
 640 South Broad Street  
 City, State, Z: P.O. Box 8068  
 Trenton, NJ 08650-0068

PS Form 3800, August 2006

7009 0820 0002 3033 1642

U.S. Postal Service  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

**OFFICIAL USE**

Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here  
 LAWRENCEVILLE, N.J. 08648  
 OCT - 6 2011  
 USPS

Sent To: Mercer County Environmental Commission  
 Mercer County Administration Building  
 Street, Apt. or PO Box: 640 South Broad Street  
 City, State: P.O. Box 8068  
 Trenton, NJ 08650-0068

PS Form 3800, August 2006

7009 0820 0002 3033 1703

U.S. Postal Service  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

**OFFICIAL USE**

Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here  
 LAWRENCEVILLE, N.J. 08648  
 OCT - 6 2011  
 USPS

Sent To: Hopewell Twp. Environmental Commission  
 Street, Apt. or PO Box: 201 Washington Crossing Pennington Rd.  
 City: Titusville, NJ 08560

PS Form 3800, August 2006

7009 0820 0002 3033 1722

U.S. Postal Service  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

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Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here  
 LAWRENCEVILLE, N.J. 08648  
 OCT - 6 2011  
 USPS

Sent To: Hopewell Twp. Planning Board  
 Linda Smith  
 Street, Apt. or PO Box: 201 Washington Crossing Pennington Rd.  
 City, State: Titusville, NJ 08560

PS Form 3800, August 2006

7009 0820 0002 3033 1710

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Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here  
 LAWRENCEVILLE, N.J. 08648  
 OCT - 6 2011  
 USPS

Sent To: Hopewell Twp. Construction Official  
 Kevin Oswald  
 Street, Apt. or PO Box: 201 Washington Crossing Pennington Rd.  
 City, State: Titusville, NJ 08560

PS Form 3800, August 2006

7009 0820 0002 3033 1659

U.S. Postal Service  
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For delivery information visit our website at [www.usps.com](http://www.usps.com)

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Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here  
 LAWRENCEVILLE, N.J. 08648  
 OCT - 6 2011  
 USPS

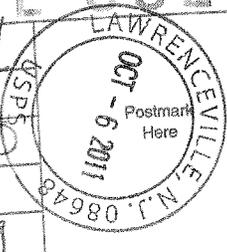
Sent To: Ewing Twp. Environmental Commission  
 Lee Farnham, Chair  
 Street, Apt. or PO Box: 2 Jake Garzio Drive  
 City, State: Ewing, NJ 08628

PS Form 3800, August 2006

7009 0820 0002 3033 1697

U.S. Postal Service  
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Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79



Sent To  
 Street, Apt. or PO Box  
 City, State,  
 Ewing Twp. Construction Official  
 William Erney, Jr.  
 2 Jake Garzio Drive  
 Ewing, NJ 08628  
 PS Form 3800, August 2006 See Reverse for Instructions

7009 0820 0002 3033 1697

U.S. Postal Service  
**CERTIFIED MAIL - RECEIPT**  
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For delivery information visit our website at [www.usps.com](http://www.usps.com)  
**OFFICIAL USE**

Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

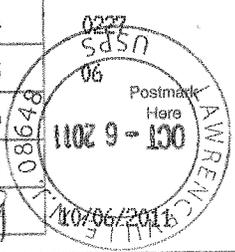


Sent To  
 Street, Apt. or PO Box  
 City, State,  
 Ewing Twp. Planning Board  
 2 Jake Garzio Drive  
 Ewing, NJ 08628  
 PS Form 3800, August 2006 See Reverse for Instructions

7009 0820 0002 3033 1697

U.S. Postal Service  
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Postage	\$ 64
Certified Fee	285.95
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	\$0.00
Total Postage & Fees	\$ 5.79



Sent To  
 Street, Apt. No.; or PO Box No.  
 City, State, ZIP+  
 Mercer County Clerk  
 Paula Sollami-Covello  
 Mercer County Administration Building  
 640 South Broad Street  
 P.O. Box 8068  
 Trenton, NJ 08650-0068  
 PS Form 3800

7009 0820 0002 3033 1628

U.S. Postal Service  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)  
 For delivery information visit our website at www.usps.com  
**OFFICIAL USE**

Postage	\$ .64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here  
OCT 11 2011

Sent To  
 Block 530, Lot 57  
 ROBINSON RONALD UX  
 1 0 4 JACOBS CREEK ROAD  
 EWING, NJ 08628  
 PS Form 3800, August 2006 See Reverse for Instructions

7009 0820 0002 3033 1611

U.S. Postal Service  
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Postage	\$ .64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here  
OCT 11 2011

Sent To  
 Block 530, Lot 38  
 STOVALL, SAMUEL & KELLY, KEVIN  
 1 0 2 JACOBS CREEK RD  
 EWING, NJ 08628  
 PS Form 3800, August 2006 See Reverse for Instructions

7009 0820 0002 3033 1383

U.S. Postal Service  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)  
 For delivery information visit our website at www.usps.com  
**OFFICIAL USE**

Postage	\$ .64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here  
OCT 11 2011

Sent To  
 Block 530, Lot 32  
 GROSS, EUGENE G. UX  
 1 0 2 5 BEAR TAVERN ROAD  
 EWING, NJ 08628  
 PS Form 3800, August 2006 See Reverse for Instructions

7011 1570 0002 7264 0221

U.S. Postal Service  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)  
 For delivery information visit our website at www.usps.com  
**OFFICIAL USE**

Postage	\$ .64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here  
OCT 11 2011

Sent To  
 Block 530, Lot 36  
 RAVIN, REUEL JJ.  
 5 2 LOCHATONG ROAD  
 EWING, NJ 08628  
 PS Form 3800, August 2006 See Reverse for Instructions

7009 0820 0002 3033 1376

U.S. Postal Service  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)  
 For delivery information visit our website at www.usps.com  
**OFFICIAL USE**

Postage	\$ .64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here  
OCT 11 2011

Sent To  
 Block 530, Lot 35  
 SWAYZE JENNIFER M  
 50 LOCHATONG RD  
 WEST TRENTON, NJ 08628  
 PS Form 3800, August 2006 See Reverse for Instructions

7009 0820 0002 3033 1390

U.S. Postal Service  
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**OFFICIAL USE**

Postage	\$ .64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here  
OCT 11 2011

Sent To  
 Block 530, Lot 31  
 JOHNSON, JAMES UX  
 1031 BEAR TAVERN ROAD  
 EWING, NJ 08628  
 PS Form 3800, August 2006 See Reverse for Instructions

7011 1570 0002 7264 0375

U.S. Postal Service  
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Postage	\$ 64	Postmark Here
Certified Fee	285	
Return Receipt Fee (Endorsement Required)	230	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$ 5.79	

Sent To  
 Block 93, Lot 15.01  
 Navdeep S & Behroze N Jaikarta  
 210 Jacobs Creek Road  
 Titusville, NJ 08560

7009 0820 0002 7264 1451

U.S. Postal Service  
**CERTIFIED MAIL... RECEIPT**  
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 For delivery information visit our website at [www.usps.com](http://www.usps.com)  
**OFFICIAL USE**

Postage	\$ 64	Postmark Here
Certified Fee	285	
Return Receipt Fee (Endorsement Required)	230	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$ 5.79	

Sent To  
 Block 437, Lot 8  
 PLANTIER PAULA  
 115 JACOBS CREEK RD  
 EWING, NJ 08628

7011 1570 0002 7264 0313

U.S. Postal Service  
**CERTIFIED MAIL... RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)  
 For delivery information visit our website at [www.usps.com](http://www.usps.com)  
**OFFICIAL USE**

Postage	\$ 64	Postmark Here
Certified Fee	285	
Return Receipt Fee (Endorsement Required)	230	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$ 5.79	

Sent To  
 Block 437, Lot 10  
 Thomas J. & Moira D. Grabe  
 111 Jacobs Creek Road  
 Ewing, NJ 08628

7009 0820 0002 7264 1444

U.S. Postal Service  
**CERTIFIED MAIL... RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)  
 For delivery information visit our website at [www.usps.com](http://www.usps.com)  
**OFFICIAL USE**

Postage	\$ 64	Postmark Here
Certified Fee	285	
Return Receipt Fee (Endorsement Required)	230	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$ 5.79	

Sent To  
 Block 437, Lot 9  
 SERVIS, DAVID M. & COLLEEN N.  
 113 JACOBS CREEK ROAD  
 EWING, NJ 08628

7009 0820 0002 7264 1468

U.S. Postal Service  
**CERTIFIED MAIL... RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)  
 For delivery information visit our website at [www.usps.com](http://www.usps.com)  
**OFFICIAL USE**

Postage	\$ 64	Postmark Here
Certified Fee	285	
Return Receipt Fee (Endorsement Required)	230	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$ 5.79	

Sent To  
 Block 437, Lot 7  
 STEWART, RACHEL P & JOHN ROBERT  
 105 JACOBS CREEK RD  
 EWING, NJ 08628

7011 1570 0002 7264 0269

U.S. Postal Service  
**CERTIFIED MAIL... RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)  
 For delivery information visit our website at [www.usps.com](http://www.usps.com)  
**OFFICIAL USE**

Postage	\$ .64	Postmark Here
Certified Fee	285	
Return Receipt Fee (Endorsement Required)	230	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$ 5.79	

Sent To  
 Block 530, Lot 3  
 Arthur & Sylvie Williams  
 106 Jacobs Creek Road  
 Ewing, NJ 08628

7011 1570 0002 7264 0344

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**OFFICIAL USE**

Postage	\$ .64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here  
OCT 5 2006

Sent To  
Block 530, Lot 32  
Eugene G. Gross UX  
1025 Bear Tavern Road  
Ewing, NJ 08628

PS Form 3800, August 2006

See Reverse for Instructions

7011 1570 0002 7264 0351

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Postage	\$ .64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here  
OCT 5 2006

Sent To  
Block 530, Lot 35  
Jennifer M. Swayze  
50 Lochatong Road  
Ewing, NJ 08628

PS Form 3800, August 2006

See Reverse for Instructions

7011 1570 0002 7264 0290

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For delivery information visit our website at [www.usps.com](http://www.usps.com)

**OFFICIAL USE**

Postage	\$ .64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here  
OCT 5 2006

Sent To  
Block 437, Lot 7 & 12  
Rachel P. Clark  
27 Diverty Road  
Pennington, NJ 08534

PS Form 3800, August 2006

See Reverse for Instructions

7011 1570 0002 7264 0306

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**OFFICIAL USE**

Postage	\$ .64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here  
OCT 5 2006

Sent To  
Block 437, Lot 11  
Thomas & Laura Sommerville  
107 Jacobs Creek Road  
Ewing, NJ 08628

PS Form 3800, August 2006

See Reverse for Instructions

7011 1570 0002 7264 0207

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**OFFICIAL USE**

Postage	\$ .64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here  
OCT 5 2006

Sent To  
Block 436, Lot 35  
Vernon C. Clark UX  
110 Jacobs Creek Road  
Ewing, NJ 08560

PS Form 3800, August 2006

See Reverse for Instructions

7011 1570 0002 7264 0214

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**OFFICIAL USE**

Postage	\$ .64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here  
OCT 6 2006

Sent To  
Block 437, Lot 8  
Paula Plantier  
115 Jacobs Creek Road  
Ewing, NJ 08628

PS Form 3800, August 2006

See Reverse for Instructions

7009 0820 0002 3033 1567

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Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here

Sent To  
 Street, Apt. No. or PO Box No. Block 95, Lot 3  
 City, State, ZIP Kerr Ridge Farm LLC  
 1132 Bear Tavern Road  
 Titusville, NJ 08560

7009 0820 0002 3033 1369

U.S. Postal Service  
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OFFICIAL USE

Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here

Sent To  
 Street, Apt. No. or PO Box No. Block 93, Lot 18.01  
 City, State, ZIP Michael S. & Maria A. Krockner  
 2 Todd Ridge Road  
 Titusville, NJ 08560

7009 0820 0002 3033 1765

U.S. Postal Service  
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For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here

Sent To  
 Street, Apt. No. or PO Box No. Block 93, Lot 16  
 City, State, ZIP William & Sara Oderwald  
 202 Jacobs Creek Road  
 Titusville, NJ 08560

7009 0820 0002 3033 1527

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For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here

Sent To  
 Street, Apt. No. or PO Box No. Block 99.01, Lot 36.01  
 City, State, ZIP Mary Jane Cooper  
 50 Maddock Road  
 Titusville, NJ 08560

7011 1570 0002 7264 0368

U.S. Postal Service  
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(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here

Sent To  
 Street, Apt. No. or PO Box No. Block 530, Lot 36  
 City, State, ZIP Reuel J. Ravin  
 1001 Grand Court  
 Highland Beach, FL 33487

7011 1570 0002 7264 0382

U.S. Postal Service  
CERTIFIED MAIL™ RECEIPT  
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark Here

Sent To  
 Street, Apt. No. or PO Box No. Block 93, Lot 15.02  
 City, State, ZIP Anthony Vitella & Cathe Mosner  
 206 Jacobs Creek Road  
 Titusville, NJ 08560

7009 0820 0002 3033 1420

U.S. Postal Service  
CERTIFIED MAIL RECEIPT  
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com  
**OFFICIAL USE**

Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79



Sent To  
 Street, Apt. or PO Box: Block 437, Lot 11  
 City, State: SOMMERVILLE, THOMAS & LAURA  
 1 0 7 JACOBS CREEK RD.  
 EWING, NJ 08628

7009 0820 0002 3033 1418

U.S. Postal Service  
CERTIFIED MAIL RECEIPT  
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com  
**OFFICIAL USE**

Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79



Sent To  
 Street, Apt. or PO Box: Block 530, Lot 3  
 City, State: WILLIAMS, ARTHUR & SYLVIE  
 106 JACOBS CREEK RD.  
 EWING, NJ 08628

7009 0820 0002 3033 1406

U.S. Postal Service  
CERTIFIED MAIL RECEIPT  
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com  
**OFFICIAL USE**

Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79



Sent To  
 Street, Apt. or PO Box: Block 530, Lot 4  
 City, State: SCHUSTER, WARREN D. & DONNA L.  
 1033 BEAR TAVRN RD.  
 EWING, NJ 08628

7009 0820 0002 3033 1475

U.S. Postal Service  
CERTIFIED MAIL RECEIPT  
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com  
**OFFICIAL USE**

Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79



Sent To  
 Street, Apt. or PO Box: Block 437, Lot 1  
 City, State: NJ CONSERVATION FOUNDATION  
 170 LONGVIEW ROAD  
 FAR HILLS, NJ 07931

7009 0820 0002 3033 1604

U.S. Postal Service  
CERTIFIED MAIL RECEIPT  
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com  
**OFFICIAL USE**

Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79



Sent To  
 Street, Apt. or PO Box: Sunoco Pipeline L.P.  
 City, State: Right of Way Dept.  
 525 Fritztown Road  
 Sinking Spring, PA 19608

9651 0820 0002 3033 1594

U.S. Postal Service  
CERTIFIED MAIL RECEIPT  
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com  
**OFFICIAL USE**

Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79



Sent To  
 Street, Apt. or PO Box: Public Service Electric and Gas Company  
 City, State: Manager - Corporate Properties  
 80 Park Plaza, T6B  
 Newark, NJ 07102

7009 0820 0002 3033 1437

U.S. Postal Service™  
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For delivery information visit our website at [www.usps.com](http://www.usps.com)  
**OFFICIAL USE**

Postage	\$ 64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark  
Here  
OCT 1 2011

Sent To  
Block 437, Lot 10  
GRABE, THOMAS J. & MOIRA D.  
111 JACOBS CREEK ROAD  
EWING, NJ 08628

PS Form 3800, August 2006 See Reverse for Instructions

7011 1570 0002 7264 0263

U.S. Postal Service™  
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**OFFICIAL USE**

Postage	\$ .64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark  
Here  
OCT 1 2011

Sent To  
Block 530, Lot 58  
Samuel Stovall & Kevin Kelly  
102 Jacobs Creek Road  
Ewing, NJ 08628

PS Form 3800, August 2006 See Reverse for Instructions

7011 1570 0002 7264 0276

U.S. Postal Service™  
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For delivery information visit our website at [www.usps.com](http://www.usps.com)  
**OFFICIAL USE**

Postage	\$ .64
Certified Fee	285
Return Receipt Fee (Endorsement Required)	230
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.79

Postmark  
Here  
OCT 1 2011

Sent To  
Block 530, Lot 57  
Ronald Robinson UX  
104 Jacobs Creek Road  
Ewing, NJ 08628

PS Form 3800, August 2006 See Reverse for Instructions

7011 1570 0002 7264 0252

U.S. Postal Service™  
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Mary Jane Cooper  
50 Maddock Road  
Titusville, NJ 08560

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CLARK, VERNON C. UX  
110 JACOBS CREEK ROAD  
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Rhonda Katz & Anita Brown  
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Sent To  
Block 98, Lot 32  
Cynthia Branigan & Char. Risseli  
51 Maddock Road  
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PO Box 200, Attn: Tax Dept.  
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Block 99.01, Lot 36.03  
Eric & Nancy Weinstein  
46 Maddock Road  
Titusville, NJ 08560

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Thaddeus & Annette Bielawski  
42 Maddock Road  
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 Bryan N. & Joellen Ison  
 48 Maddock Road  
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 1033 Bear Tavern Road  
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 Mercer County Planning Board  
 McDade Administration Building  
 640 South Broad Street, PO Box 8068  
 Trenton, NJ 08650

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## **APPENDIX H**

### **NAMES AND QUALIFICATIONS OF PREPARERS**

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## **DARREN B. STANKER, AICP**

Project Manager/GIS Coordinator

### **Years of Experience**

11 (7 with PB; 4 with others)

### **Education**

B.S. Environmental Planning & Design, Rutgers University, 2000

Additional Training: Certificate in Geomatics - Rutgers University, 2000

Wetlands Delineation Certificate - Rutgers Professional Continuing Education, 2007

### **Key Qualifications**

Darren Stanker has over 10 years experience performing environmental services such as technical environmental studies including natural resource inventories and ecological technical studies; surveys related to vegetation, as well as for the habitats of threatened and endangered species; wetland delineation; preparing environmental documentation, such as NEPA Categorical Exclusion Documents and Environmental Assessments; and permit preparation for New Jersey Department of Environmental Protection (NJDEP) Freshwater Wetlands General and Individual Permits, NJDEP Flood Hazard Area Permits, NJDEP Coastal Area Facility Review Act (CAFRA) and Waterfront Development Permits, United States Army Corp Jurisdictional Determinations and Nationwide Permits, and United States Coast Guard Bridge Permits. Additionally, his expertise spans into the field of Geographic Information Systems (GIS) and Global Positioning System (GPS) technology where he is proficient in the use of ESRI GIS Desktop software, Trimble Global Positioning Systems and Trimble Pathfinder office. He typically utilizes his GIS and GPS capabilities in the field while performing environmental surveys and data collection.

### **Environmental Planning**

- Route 33 Realignment, Washington Township, Mercer County, New Jersey: senior environmental scientist/task leader responsible for environmental studies/permits including a Natural Resources Technical Study, Wetland Delineation, NJDEP Freshwater Wetlands Individual Permit and NJDEP Flood Hazard Area Individual Permit. Also responsible for support/coordination in preparation of the EO 215 document during final design of the Route 33 realignment for a Washington Town Center. The project involves a 1-mile (1.6-kilometer) alignment of Route 33, widening of Route 130, signalized at-grade jughandle intersections, and a new bridge over Edges Brook.
- County Route (CR) 533 Traffic Signal Improvements, Mercer County, New Jersey: senior environmental scientist responsible for the completion of the categorical exclusion document and consultation with the New Jersey State Historic Preservation Office to obtain concurrence that no impacts will occur to historic properties as a result of the intersection improvements. This was a study to develop long-term upgrades and interconnection of 22 intersections along CR 533. Project includes optimization of traffic signal timings at the intersections using the existing equipment. The design phase is anticipated to follow shortly, detailing recommended improvements in contract documents.
- Rehabilitation and Widening of Route 72/Manahawkin Bay Bridges, Ocean County, New Jersey: senior environmental scientist responsible for support/coordination of environmental technical studies and for preparation of NEPA Environmental Assessment document during the preliminary design. The project involves the widening of the Route 72 causeway that links the mainland with Long Beach Island from MP 25.5 to MP 28.2. Work includes a new structure over Manahawkin Bay, parallel to the existing Manahawkin Bay Bridge, and the rehabilitation of four bridges on the Route 72 Causeway, located in Stafford Township and Ship Bottom Borough. Work also improvements at the Route 72/Marsha Drive intersection; and a roundabout at the Marsha Drive/Bay Avenue intersection.

- Atlantic City International Airport Grassland Conservation and Management Project, Township of Egg Harbor, Atlantic County, New Jersey: project manager responsible for overseeing all phases of grassland creation and enhancement within the 300-acre (121-hectare) management area including vegetation surveys, construction management and plantings, coordination of a Grassland Advisory Committee, and completion of a yearly Habitat Evaluation Procedure (HEP) model using GIS. This model ensures that more habitat is created/sustained in a given year compared to the amount of habitat lost due to construction.
- New Jersey Turnpike (TPK) and Garden State Parkway (GSP) Service Area Inventory: deputy project manager responsible for coordinating and conducting field inventories of all service areas located along the TPK and GSP, and the creation of an ARCGIS geodatabase including multiple feature datasets, feature classes, stand along tabular data, and metadata. Also responsible for assisting in extensive interviews with all departments of the New Jersey Turnpike Authority in an effort to identify short and long term database needs and goals. :
- United Water New Jersey, Proposed Radionuclide Treatment Facility, Township of Berkeley, Ocean County, New Jersey: project manager responsible for completion of site inspection, consultation, completion of an existing tree survey and environmental assessment report.
- United Water New Jersey, Well 33, Township of Berkeley, Ocean County, New Jersey: provided a site inspection, consultation, and summary of findings to the applicant and its professionals regarding environmental constraints on expanding the facilities on this site.
- Ocean Drive/Middle Thorofare Upgrade and Bridge Replacement, Township of Lower, Cape May County, New Jersey: GIS analyst responsible for quantifying shellfish, wetland, submerged aquatic species, dunes, and threatened and endangered species habitat impacts during the alternatives analysis.
- Atlantic City Expressway, Westbound Widening, Camden and Atlantic Counties, New Jersey: GIS analyst responsible for creating wetland and threatened and endangered habitat; and also and quantifying any impacts to that habitat along the 30 mile westbound lane widening.
- Egg Harbor Township Development Application Review, Egg Harbor Township, Atlantic County, New Jersey: conducted surveys of proposed development sites to determine presence or potential of wetlands, threatened and endangered species and/or their habitat and reviewed plans and other environmental documents submitted as part of the development application for compliance with township ordinances.

#### **Environmental Permitting**

- United Water New Jersey, Haworth Water Treatment Plant, Borough of Haworth, Bergen County, New Jersey: provided a wetland delineation and completion of NJDEP Freshwater Wetlands General Permit, NJDEP Flood Hazard Area Individual Permit, and NJDEP Riparian Zone Replanting Plan. The permits were needed for the installation of two new 48-inch (1.2-meter) water mains being installed at the treatment plant.
- New Jersey Department of Transportation, Southern New Jersey Scour Countermeasure Project, Southern New Jersey: responsible for preparing NJDEP Freshwater Wetland and Flood Hazard General Permits, for southern New Jersey bridges identified as scour critical.
- Route 49 and Route 55 Interchange, City of Millville, Cumberland County, New Jersey: responsible for conducting Section 10 Reforestation Determination. Also assisted with the preparation of Category Exclusion Document (CED) including Technical Environmental Study (Ecology) and Section 4(f) compliance, and during final design, the submission of Statewide General Permits and Environmental Report for Stream Encroachment Permit.
- Bordentown Hospitality, Bordentown, New Jersey: responsible for assisting in client and attorney consultation, development of permitting strategies, and applications to NJDEP for

Statewide General Permit 10A and Transition Area Waivers for this proposed real estate development.

- Golden Orchards, Golden Oaks, Borough of Hillsdale & Township of Washington, Bergen County, New Jersey: responsible for submission of application for an extension of the existing letter of interpretation (LOI) for the property and also assisted with coordination with New Jersey Department of Environmental Protection regulators and U.S. Fish & Wildlife Service biologists to reach a compromise regarding protection of the federally endangered Indiana bat (*Myotis sodalists*), to allow this residential development project to proceed.
- Gow Road Development, Township of Wayne, Passaic County, New Jersey: submitted application to NJDEP for a Statewide General Permit No. 10A and Individual Transition Area Waiver to permit construction of a proposed residential development on this site.
- Scott Road Development, Borough of Fairfield, Essex County, New Jersey: submitted application to NJDEP for a Statewide General Permit No. 6 to permit the disturbance of a non-tributary freshwater wetland, to allow the construction of a proposed residential development on this site.
- Mayrich Development, LLC, Town of Kearny, Hudson County, New Jersey: responsible for assisting in agency coordination and preparation of NJDEP Stream Encroachment Permit for 30,000-square-foot (proposed commercial warehouse on a 3.38-acre (1.4-hectare) site (Block 150, Lots 30, 31, 34, and 35A) in Kearny, New Jersey, within the Meadowlands District. :
- Village of Ridgefield Park, Bergen County, New Jersey: assisted in the wetland delineation and preparation of reports to be included as part of an application for a Letter of Interpretation for three separate properties.
- Costco Wholesale Corp. and Universal Realty and Development, Borough of Wharton, Morris County, New Jersey: assisted in the preparation and submission of applications to NJDEP for a Statewide General Permit No. 1, an Individual Transition Area Waiver, and Stream Encroachment Permit, for proposed bank and Costco gas filling station and parking lot expansion.
- New Jersey Highlands Exemption, Township of West Milford, Hunterdon County, New Jersey: responsible for preparation of Highlands Applicability Determination for an exemption for the construction of a single family residential dwelling.
- Minor Subdivision, Block 20, Lot 11, Randolph Township, Morris County, New Jersey: assisted with the wetland delineation and preparation of a NJDEP Freshwater Wetlands General Permit 10B.

#### **Stormwater Management**

- Atlantic City Expressway, Westbound Widening, Camden and Atlantic Counties, New Jersey: assisted in calculating on-site and off-site stormwater management requirements for groundwater recharge, water quality, and quantity control to develop best management practices for stormwater control in accordance with the New Jersey Pinelands Commission and NJDEP Stormwater Management Rules.
- Route 49 and Route 55 Interchange, City of Millville, Cumberland County, New Jersey: assisted in calculating stormwater management requirements for groundwater recharge, water quality, and quantity control to develop best management practices for stormwater control in accordance with the NJDEP Stormwater Management Rules.
- Case Boulevard, Raritan Township, Hunterdon County, New Jersey: assisted in calculating stormwater management requirements for groundwater recharge, water quality, and quantity control to develop best management practices for stormwater control in accordance with the NJDEP Stormwater Management Rules.

- Route 78 westbound widening, Bedminster Township, Somerset County, New Jersey: assisted in calculating stormwater management requirements for groundwater recharge, water quality and quantity control to develop best management practices for stormwater control in accordance with the NJDEP Stormwater Management Rules.
- Route 10 and Route 202, Parsippany –Troy Hills, Morris County, New Jersey: assisted in calculating stormwater management requirements for groundwater recharge, water quality, and quantity control to develop best management practices for stormwater control in accordance with the NJDEP Stormwater Management Rules.

### **Previous Experience**

Prior to joining PB, Mr. Stanker's experience included:

- Atlantic City International Airport Expansion Master Plan/Environmental Impact Statement, Township of Egg Harbor, Atlantic County, New Jersey: responsible for the interpretation of aerial photography, digitizing of all vegetation communities within the airport infields, creation and analysis of GIS coverages used to run the Habitat Evaluation Procedure and quantify impacts of proposed project alternatives on vegetation communities and habitat for endangered and threatened species.
- Randolph & Roxbury Township's, Morris County, New Jersey: responsible for the compiling of data, creation of all maps and graphics that accompanied a written report, and providing a final draft to the township on CD-ROM in ESRI ArcView format.
- Township of Alexandria, Hunterdon County, New Jersey: responsible for the compiling of data, creation of all maps and graphics that accompanied a written report, and providing a final draft to the township on CD-ROM in ESRI ArcView format.
- Hamburg Mountain General Development Plan Assistance, Township of Vernon, Sussex County, New Jersey: GIS specialist responsible for the creation and analysis of GIS coverages highlighting the environmental impacts to the site, including impacts to endangered and threatened species habitat and forest interior habitat. Created display boards using GIS to present the findings in public hearings.
- Southern New Jersey Light Rail Transit System, New Jersey: assisted with field assessment of vegetation communities and recording data using GPS technology and create all maps using GIS for inclusion in final report. The project involves the design, build, operation and maintenance of a diesel-powered transit system between Camden and Trenton, New Jersey.
- Rockaway River Watershed Stream Corridor Analysis, Morris County, New Jersey: responsible for conducting a stream corridor analysis within the entire watershed in addition to the 25- and 75-foot (7.6- and 22.8-meter) stream buffer areas. Obtained data for incorporation into Excel spreadsheets and prepared land cover/land use maps for all of the participating municipalities for inclusion in each member municipalities' written report.
- Many Mind Creek Greenway, Borough of Atlantic Highlands, Monmouth County, New Jersey: responsible for the creation of the Final Greenway Plan using a mix of GIS software and AutoCAD 2002. The Borough of Atlantic Highlands wanted to clean up portions of their existing waterfront properties and encourage the use of these properties for public recreation, stabilize shorelines and enhance wildlife habitat.

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## **AMANDA MENDOZA**

Environmental Scientist

### **Years of Experience**

3 with PB

### **Education**

B.S., Biology (concentration in Environmental Science), Montclair State University, 2008

### **Professional Registrations**

The Rutgers University Wetland Delineator Program, 2008

### **Professional Affiliations**

The Coastal and Estuarine Research Federation

### **Key Qualifications**

Amanda Mendoza is an environmental scientist whose responsibilities have included assisting in the preparation of environmental documents along with wetland delineations and habitat assessments.

### **Highways and Bridges**

- New Jersey Turnpike Widening, Mercer County, New Jersey: Assisted in the preparation of environmental impact plans for the widening of the New Jersey Turnpike between exits 6 and 9.
- NJDOT Bridge Scour Countermeasure Project, various counties, New Jersey: Assisted in the delineation of wetlands as well as the preparation of NJDEP Freshwater Wetlands and Flood Hazard Area General Permit application reports for various scour critical roadway bridges across New Jersey.
- Tuckahoe Roadway Improvements, Franklin Township, Gloucester County, New Jersey: Assisted in the preparation of NJDEP Freshwater Wetlands General Permit #10B application for the widening and realignment of Tuckahoe Road.
- Atlantic City International Airport, Township of Egg Harbor, Atlantic County, New Jersey: Assisted in field investigations and habitat assessments for grassland conservation and management.
- Routes 1 and 9T, City of Jersey City, Hudson County, New Jersey: Assisted in field investigations and ATR traffic data collection for the Routes 1 and 9T roadway improvements in Jersey City, New Jersey.
- Baldwin Avenue Roadway Improvements, Township of Weehawken, Hudson County, New Jersey: Assisted in the preparation of a Waterfront Development Permit application for the widening, realignment, and reconstruction of Baldwin Avenue between its existing intersection with JFK Boulevard East and its relocated intersection with Port Imperial Blvd/Harbor Blvd/ Waterfront Terrace.
- Route 46 and Little Ferry Circle Elimination, Borough of Little Ferry, Bergen County, New Jersey: Assisted in the wetland delineation and preparation of an Army Corps Nationwide Permit No. 7 for the Route 46 roadway improvements in the Borough of Little Ferry, New Jersey.
- Route 159 WB Bridge over Route 46 EB Superstructure Replacement, Township of Montville, Morris County, New Jersey: Prepared an Environmental and Soil Erosion and

Sediment Control Plan for the superstructure replacement and associated roadway improvements in Montville, New Jersey.

- Schalks Crossing Road over Amtrak Northeast Conrail and Devil's Brook, Township of Plainsboro, Middlesex County, New Jersey: Prepared an Environmental and Soil Erosion and Sediment Control Plan and Report for the Schalks Crossing Road Bridge over Amtrak Northeast Conrail and Devil's Brook Rehabilitation Project in Plainsboro, New Jersey.
- Route 72 Manahawkin Bay Bridges, Township of Stafford and Borough of Ship Bottom, Ocean County, New Jersey: Assisted in the delineation of wetlands as well as the preparation of a Wetland Delineation Report for the Route 72 Manahawkin Bay Bridge Rehabilitation and Marsha Drive Improvements Project in Stafford and Ship Bottom, New Jersey.
- Route 22 Bridge over Conrail and Liberty Avenue, Township of Hillside, Union County, New Jersey: Prepared an Environmental and Soil Erosion and Sediment Control Plan and Report for the Route 22 over Conrail and Liberty Avenue Bridge Replacement Project in Hillside, New Jersey.
- Interstate 78 Roadway Rehabilitation Project, Township of Greenwich, Warren County, New Jersey: Prepared an Environmental and Soil Erosion and Sediment Control Plan and Report for the I-78 Roadway Rehabilitation Project in Greenwich, New Jersey.
- Staten Island Expressway Bus Lane Extension, Staten Island, New York: Prepared the environmental assessment section of a Design Report and a Wetlands Presence/Absence Report for the Staten Island Expressway Bus/HOV Lane Extension Project from Richmond Avenue to Slosson Avenue in Staten Island, New York.
- Route 23 Sussex Borough Realignment and Papakating Creek Bridge Replacement, Sussex Borough and Wantage Township, Sussex County, New Jersey: Prepared a NJDEP Freshwater Wetlands Permit and Flood Hazard Area Permit with associated permit plans for the realignment of Route 23 through Sussex Borough and the replacement of the bridge over Papakating Creek.
- Joint Aviation Support Division/Aviation Intermediate Maintenance Detachment Facility, Joint Base McGuire Dix Lakehurst, Burlington County, New Jersey: Prepared a NJDEP Freshwater Wetlands General Permit #10A and Flood Hazard Area Individual Permit for the construction of an access road that would connect Fort Dix to McGuire Air Force Base for aircraft related activities.
- Route 35 over Cheesequake Creek Bridge Rehabilitation, Borough of Sayreville and Township of Old Bridge, Middlesex County, New Jersey: Prepared a USACE Nationwide Permit #3 and assisted in the wetland delineation and preparation of a Waterfront Development Permit for the proposed rehabilitation of the Route 35 Bridge over the Cheesequake Creek.

#### **Utilities**

- Haworth Water Treatment Plant, Borough of Haworth, Bergen County, New Jersey: Prepared a Flood Hazard Area Individual Permit, a Flood Hazard Area Hardship Waiver, and a Freshwater Wetlands General Permit #2 for the United Water New Jersey Water Transmission Main Improvements Project in Haworth, New Jersey.

- Berkeley Radionuclides Treatment Facility, Berkeley Township, Ocean County, New Jersey: Prepared an Environmental Impact Statement for a proposed radium and gross alpha treatment facility in a Berkeley Township residential development.
- Woodcliff Lake Dam Improvements, Borough of Woodcliff Lake and Hillsdale, Bergen County, New Jersey: Prepared a NJDEP Freshwater Wetlands General Permit #18 for the United Water New Jersey Woodcliff Lake Dam Improvements Project which included the construction of an auxiliary spillway, embankment protection, and low level outlet protection at the Woodcliff Lake Dam and reservoir.

#### **Local Government**

- Randall's Island, New York: Prepared a New York State Environmental Quality Review Act Environmental Assessment for the proposed wetland restoration and reconstruction of sports facilities on Randall's Island.

#### **Previous Experience**

Before joining PB, Amanda's experience included:

- Montclair State University, Montclair, New Jersey: Involvement in a number of marine ecology research projects including assisting in the study of plant and animal populations within seagrass beds in Barnegat Bay, New Jersey; applying field sampling and laboratory techniques in the assessment of the bivalve population at Many Mind Creek, Atlantic Highlands, New Jersey; conducted individual research to assess and compare plant species richness and grazing patterns of sea turtles and parrotfish within three bays in St. John, USVI; and examine feeding strategies of reef fish in Spanish Harbor, Big Pine Key, Florida.

## **APPENDIX I**

**NJDEP NATURAL HERITAGE LETTER, USFWS MUNICIPAL LIST,  
LIST OF NJDEP APPROVED WETLAND MITIGATION BANKS AND  
NJDEP PRE-APPLICATION MEETING MINUTES**



# State of New Jersey

## DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Parks and Forestry

Mail Code 501-04

ONLM - Natural Heritage Program

P.O. Box 420

Trenton, NJ 08625-0420

Tel. #609-984-1339

Fax. #609-984-1427

CHRIS CHRISTIE  
Governor

KIM GUADAGNO  
Lt. Governor

BOB MARTIN  
Commissioner

May 16, 2011

Amanda Mendoza  
Parsons Brinckerhoff  
2000 Lenox Drive, 3rd Floor  
Lawrenceville, NJ 08648

Re: Bear Tavern Road Bridge over Jacob's Creek

Dear Ms. Mendoza:

Thank you for your data request regarding rare species information for the above referenced project site in Hopewell Township, Mercer 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
shortnose sturgeon	<i>Acipenser brevirostrum</i>	LE	E	G3	S1

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
Fowler's toad	<i>Bufo woodhousii fowleri</i>		SC	G5	S3

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 Mercer 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](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/dep splash.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,



Robert J. Cartica  
Administrator

c: NHP File No. 11-4007437-7304

Federally Listed and Candidate Species Occurrences in New Jersey by County and Municipality

County	Municipality	Bog Turtle (T)	Piping Plover (T)	Indiana Bat (E)	Dwarf Wedgemussel (E)	NE Beach Tiger Beetle (T)	Small Whorled Pogonia (T)	Swamp Pink (T)	Knieskern's Beaked Rush (T)	American Chaffseed (E)	Sensitive Joint-vetch (T)	Seabeach Amaranth (T)	Red Knot (C)	Bog Asphodel (C)	Hirsts' Panic Grass (C)
Federal Listing Status: (E)=Endangered, (T)=Threatened, (C)=Candidate															
E = Extant (present), P = Potential (may be present), H = Historic (may still be present), X = Extirpated (no longer present)															
Extant occurrences of Indiana bat: MA = Maternity (April 1 to Sept. 30), HI = Hibernation															
HUNTERDON	Lebanon Township	E		P			P								
HUNTERDON	Milford Borough	P		P											
HUNTERDON	Raritan Township	P		P											
HUNTERDON	Readington Township	E		P											
HUNTERDON	Stockton Borough			P											
HUNTERDON	Tewksbury Township	E		MA			H								
HUNTERDON	Union Township	E		P											
HUNTERDON	West Amwell Township			P											
MERCER	East Windsor Township	E													
MERCER	Ewing Township			P											
MERCER	Hamilton Township	H													
MERCER	Hopewell Township			P											
MERCER	Lawrence Township			P											
MERCER	Princeton Township			P											
MERCER	Robbinsville Township	H													
MERCER	Trenton City				X										
MERCER	West Windsor Township	P		P				H							
MIDDLESEX	Cranbury Township	P		P											
MIDDLESEX	East Brunswick Township	H		P				E							
MIDDLESEX	Edison Township			P				X							
MIDDLESEX	Helmetta Borough	H		P				P							
MIDDLESEX	Middlesex Borough			P											
MIDDLESEX	Monroe Township			P				P							
MIDDLESEX	New Brunswick City			P				X							
MIDDLESEX	North Brunswick Township			P											
MIDDLESEX	Old Bridge Township			P				P							
MIDDLESEX	Perth Amboy City							X							
MIDDLESEX	Piscataway Township			P											
MIDDLESEX	Plainsboro Township	P		P											
MIDDLESEX	Sayreville Borough	X						X							
MIDDLESEX	South Brunswick Township			P											
MIDDLESEX	South Plainfield Borough			P											
MIDDLESEX	Spotswood Borough			P											
MIDDLESEX	Woodbridge Township			P											
MONMOUTH	Aberdeen Township		P										P		
MONMOUTH	Allenhurst Borough		P										P		
MONMOUTH	Asbury Park City		P										P		
MONMOUTH	Atlantic Highlands Borough		P										P		
MONMOUTH	Avon-by-the-Sea Borough		P										E		
MONMOUTH	Belmar Borough		P										E		
MONMOUTH	Bradley Beach Borough		P										E		
MONMOUTH	Brielle Borough							E							
MONMOUTH	Colts Neck Township							E	E						

# Wetlands Mitigation Council of NJ

## Approved Mitigation Banks as of 3/3/11

The table below lists each Watershed Management Area (WMA) HUC 8 with its corresponding mitigation bank(s). To receive more information about each bank, click on the name of the bank. To see a map showing the service areas of each of the Mitigation Banks listed below, [click here](#)

WMA	Servicing Bank	WMA	Servicing Bank
1	➤ Willow Grove Lake	11	➤ Willow Grove Lake ➤ Nishisakawick Bank
2	No Mitigation Bank	12	No Mitigation Bank
3	➤ Pio Costa ➤ C&C Builders	13	No Mitigation Bank
4	➤ Pio Costa ➤ C&C Builders	14	No Mitigation Bank
5	➤ C&C Builders (portion of 5) ➤ Kane Wetland Mitigation Bank (meadowlands)	15	➤ Great Egg Harbor Bank
6	➤ Pio Costa ➤ C&C Builders	16	➤ Stipson's Island
7	➤ Port Reading (Tidal portions of 7)	17	➤ Willow Grove Lake
8	➤ Wyckoff Mills	18	➤ Willow Grove Lake ➤ M& S Excavation
9	➤ Port Reading (Tidal portions of 9)	19	➤ Willow Grove Lake
10	➤ Wyckoff Mills ➤ Cranbury Wetland Mitigation Bank	20	➤ Willow Grove Lake ➤ Rancocas Phase 1 and 2

## Status as of 5/1/11

The Council and NJDEP have approved 13 mitigation banks, which are as follows:

1. Willow Grove Lake Wetlands Mitigation Bank is operated by The Nature Conservancy and is located on two separate parcels of land totaling 1,073 acres in the City of Vineland, Cumberland County, and Pittsgrove Township, Salem County. One parcel totals 734 acres with 355 acres of it wetlands and 379 acres of it uplands. The second parcel totals 339 acres with 245 acre of it wetlands and 94 acres of it uplands. The bank received a total of 40 mitigation credits for freshwater wetland/upland preservation activities. The service area of the mitigation bank includes watershed management areas 1, 11, 17, 18, 19 and 20 (Delaware River Drainage Basin). The contact for the bank is Barbara Brummer, Director, The Nature Conservancy - New Jersey Chapter, Elizabeth D. Kay Environmental Center, 200 Pottersville Road, Chester, New Jersey 07930-2432. Phone: (908) 879-7262 Fax: (908) 879-2172. **This bank is able to sell its mitigation credits.**
2. Pio Costa Wetland Mitigation Bank is operated by Anthony Pio Costa and is located on 158 acre parcel in the Borough of Lincoln Park, Morris County. The Bank has received a total of 28.62 mitigation credits for freshwater wetland creation and enhancement activities as well as preservation of wetlands, open waters and uplands. The service area of the mitigation bank includes watershed management areas 3, 4 and 6 (Passaic Drainage Basin). The contact for the bank is Carmen Pio Costa and he may be reached at (973) 575-1706. **This bank is able to sell a portion of its mitigation credits.**
3. Wyckoff's Mills Wetland Mitigation Bank is operated by Shaw Environmental Infrastructure Inc. and is located on a 146.46 acre parcel in Monroe Township, Middlesex County. The bank received a total of 86.91 mitigation credits for freshwater wetland creation, and wetland/transition area enhancement activities as well as the preservation of upland and wetland areas. The service area of the mitigation bank includes watershed management areas 8, 9 and 10 (Raritan Drainage Basin). The contact for the bank is Ron Prann from Shaw Environmental & Infrastructure, Inc. and he can be reached at (609) 588-6345 or 609-731-5400. **This bank is able to sell a portion of its credits.**
4. C&C Builders Wetland Mitigation Bank Phase I is operated by C&C Builders LLC and is located on a 186.66 acre parcel in Fairfield Township, Essex County. The bank received a total of 54.46 mitigation credits for freshwater wetland creation and enhancement activities The service area of the mitigation bank includes watershed management areas 3, 4, 6 and portions of 5 (Passaic Drainage Basin). The contact for the bank is Carmine Zammiello from C&C Builders and he may be reached at (973) 276-0080. **This bank has no credits available for sale at this time.**
5. Rancocas Wetland Mitigation Bank Phase I is operated by the Rancocas Investments LLC and is located on a 304 acre parcel in Eastampton Township, Burlington County. Approval of the mitigation bank was tied to the approval and construction of Phase II of the bank. The bank received a total of 11.26 credits for the preservation of freshwater wetland and for wildlife and forest management activities. The service area of the bank is watershed management area 20 (Assiscunk, Crosswicks and Doctors Creek watersheds). The contact for the bank is Nicholas Rudi, Rancocas Investment LLC and he can be reached at 609-841-4536. **This bank is able to sell a portion of its credits.**

6. Rancocas Wetland Mitigation Bank Phase II is operated by the Rancocas Investments LLC and is located on a 75.21 acre parcel in Eastampton and Springfield Township, Burlington County. The bank received a total of 18.03 credits for freshwater wetland creation and enhancement activities and the preservation of wetlands. The service area of the bank is watershed management area 20 (Assiscunk, Crosswicks and Doctors Creek watersheds). The contact for the bank is Nicholas Rudi, Rancocas Investment LLC and he can be reached at 609-841-4536. **This bank is able to sell a portion of its credits.**
7. The M&S Excavation bank is operated by M&S Excavation is located on a 23.51 acre property in Woolwich Township, Gloucester County. The bank received a total of 3.905 credits for freshwater wetland creation activities on 12.7 acres of the 23.51 acre parcel. The service area of the bank is watershed management area 18. The contact person for the bank is Don Schmidt, Excavating by M&S, LLC, Woolwich Township, NJ and he can be reached at 856-467-3321. **This bank is presently not able to sell mitigation credits.**
8. The Port Reading bank is operated by Prologis and is located on 11.26-acre property in the Township of Woodbridge, Middlesex County. The bank received a total of 8.47 credits for tidal wetland creation and enhancement activities on 11.13 acres of the 11.26-acre parcel. The service area for bank includes the following HUC 11's in WMA 7: 02030104050, 02030104030, 02030104020, 02030104010, and WMA 9: 02030105160. The contact person for the bank is Jeffrey W. Cappola, Esq.; Wilentz, Goldman & Spitzer P.A., 90 Woodbridge Center Drive; Suite 900, Box 10, Woodbridge, NJ 07095-0958 and he can be reached at (732) 636-8000; Direct Line: (732) 726-7464; Facsimile: (732) 726-6596; E-Mail: [jcappola@wilentz.com](mailto:jcappola@wilentz.com) Website: <http://www.wilentz.com/> **This bank is able to sell a portion of its credits.**
9. The Stipson's Island bank is operated by Evergreen Environmental LLC, and is located on a 35.04-acre parcel in the Township of Dennis, Cape May County. The bank received a total of 8.42 credits for freshwater and tidal creation, enhancement, and preservation activities. Of the 8.42 credits, 4.449 credits are for tidal impacts and 3.975 credits for freshwater impacts. The service area for the freshwater component of the bank includes watershed management area 16. The service area for the tidal component of the bank includes the following HUC 11 drainage basins: 02040206070, 02040206090, 02040206100, 02040206110, 02040206200, 02040206210, 02040206220, and 02040206230. The service area also includes HUC codes 02040302080 and 02040302940 which drain to the Atlantic Ocean, provided that impacts are less than or equal to 500 square feet and no on-site mitigation alternatives are available and there are no approved mitigation bank servicing the Atlantic Drainage Basin. The contact person for this bank is Mark Renna, Evergreen Environmental, LLC, 121 Carol Place, Wayne, NJ 07470 and he can be reached at 973-305-0643 or 973-356-7164 or by email at [mrenna@evergreenenv.com](mailto:mrenna@evergreenenv.com). **This bank is able to sell a portion of its mitigation credits.**
10. The Great Egg Harbor Wetland Mitigation Bank is operated by Evergreen Environmental, LLC, and is located on 103.28 acres in Monroe Township, Gloucester

County. The service area for the bank includes Watershed Management Area 15. The contact person for this bank is Mark Renna, Evergreen Environmental, LLC, 121 Carol Place, Wayne, NJ 07470 and he can be reached at 973-305-0643 or 973-356-7164 or by email at [mrenna@evergreenenv.com](mailto:mrenna@evergreenenv.com). **This bank is able to sell a portion of its mitigation credits.**

11. The Nishisakawick Wetland Mitigation Bank is operated by Evergreen Environmental, LLC, and is located on 13 acres in Alexandria Township, Hunterdon County. The service area for the bank includes Watershed Management Area 11. The contact person for this bank is Mark Renna, Evergreen Environmental, LLC, 121 Carol Place, Wayne, NJ 07470 and he can be reached at 973-305-0643 or 973-356-7164 or by email at [mrenna@evergreenenv.com](mailto:mrenna@evergreenenv.com). **This bank is presently not able to sell mitigation credits.**
12. The Kane Wetland Mitigation Bank is operated by EarthMark Environmental, LLC and is located in the Boroughs of Carlstadt and South Hackensack, Bergen County, New Jersey. The Service Area for the bank includes Hydrologic Unit 02030103180 (Hackensack River) and Hydrologic Unit 02030103150050 (Lower Passaic River) primarily within Bergen and Hudson Counties. These two watersheds surround and encompass the Hackensack Meadowlands District so that projects with a component in the District are included in the Service Area. The bank is set up exclusively for transportation projects. The following transportation agencies may use this bank: NJ Transit, Port Authority, NJ DOT, and NJTA. The Contact person for this bank is Rich Mogensen, EarthMark Mitigation Services, LLC, and he can be reached at (704) 782-4133 ext. 102. **This bank is able to sell a portion of its mitigation credits.**
13. The Cranbury Wetland Mitigation Bank is operated by GreenVest/Cranbury LLC and is located. The bank received a total of 38.14 mitigation credits for freshwater wetland creation, restoration and enhancement as well as wetland/transition area enhancement activities as well as the preservation of upland and wetland areas. The service area of the mitigation bank includes watershed management area 10. The contact for the bank is Doug Lashley (410)268-7422 and he can also be reached at [Doug@greenvestus.com](mailto:Doug@greenvestus.com) **This bank is able to sell a portion of its credits.**



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## BEAR TAVERN ROAD OVER JACOB'S CREEK AND EWING CREEK NJDEP PRE-APPLICATION MEETING MINUTES

### Meeting Information:

**Date:** June 13, 2011      **Time:** 1:30pm  
**Location:** NJDEP Land Use, 2<sup>nd</sup> Floor, Large Conference Room

### **Attendees:**

Basit Mozaffar – Mercer County	Michael Troncone – PB
Geg Sandusky – Mercer County	Darren Stanker – PB
Michele Hughes – NJDEP HPO	Timothy Stanford – PB
Peter DeMeo – NJDEP Land Use	Miquel Santiago – PB
Matthew Resnick – NJDEP Land Use	Damon Tuaryanas - RGA

### **Minutes:**

#### **OVERVIEW**

- Greg Sandusky of Mercer County gave a brief overview of the project, as well as a chronological timeline of past milestones and decisions that have led the project to its current state.
- Michael Troncone of PB highlighted the various engineering features of the current IPA. The IPA, as of the date of this meeting, is Alternative 3a from the 2004 Keller and Kirkpatrick Alternative Analysis report.

#### **HISTORIC PRESERVATION**

- Michael Troncone of PB introduced the members of the design team and gave an overall analysis of the existing conditions and the preferred alternative. Mike also gave a brief history of the historic Bear Tavern Road (BTR) Bridge over Jacobs Creek and the recently submitted package by.... To gain historic status to the surrounding landscape historic district.
- Michele Hughes from NJDEP HPO told the group that the pending application has been reviewed and was sent back to the applicant. The comments can be found and reviewed by the design team as they are public knowledge and posted on the site.
- Damon Tuaryanus of RGA stated that SHPO commented that the size of the district as shown in the application should be either larger or smaller in size, and either way needed further justification. He also added that possible features within the overall landscape included the BTR Truss, historic stone marker adjacent to the bridge, and the retaining walls adjacent to BTR, among others. Damon also added that to date, the project has received Phase 1B level historic analysis.
- Michelle Hughes told the group that HPO would like to see an amendment to the existing Alternative Analysis that addresses the overall historic landscape. HPO would then use that documentation and give a concurrence which would satisfy the HPO review and allow Land Use to render a decision on the Freshwater Wetlands portion of the permit application.
- Michelle Hughes clarified that if the pending district nomination is accepted prior to the Mercer County freeholders approving the construction bid, Historic State

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#### **Over a Century of Engineering Excellence**

These meeting notes are issued for review by all attendees. The preparer of these notes believes them to be an accurate record of the meeting. Please provide any comments or corrections to the preparer within five working days of receipt. If required, comments and corrections will be incorporated for distribution of final meeting notes to all parties.



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## BEAR TAVERN ROAD OVER JACOB'S CREEK AND EWING CREEK NJDEP PRE-APPLICATION MEETING MINUTES

- Law would apply and the project would need to be re-evaluated under that criteria, thus halting the project.
- Miguel Santiago of PB discussed briefly how the bridge could be rehabbed. He told the group that the current condition of the bridge meant that rehab would replace nearly 80-90% of the bridge. Also, the bridge would most likely need to be rehabbed off-site. HPO was fine with the rehab method as long as the bridge is preserved, whether it is onsite or offsite.
  - Darren Stanker from PB reviewed the freshwater wetlands impacts based on the current IPA. In its current state the IPA would require a Freshwater Wetlands IP and mitigation.
  - Matthew Resnick from NJDEP Land Use told the group that the impacts in the pre-application package were based off of 150 ft transition areas. NJDEP did a review of the natural heritage letter received and while shortnose sturgeon is listed, it will not make the wetlands exceptional and therefore we should re-evaluate the impacts using a 50 ft transition area, not 150 ft.
  - Pete DeMeo from NJDEP Land Use instructed the group that the IPA should try and be minimized as much as possible as to make it eligible for a FWW General Permit. The process for an IP will require justification for why multiple alternatives wouldn't work and is a much more cumbersome process. Pete also reiterated that the IP does not have a clock associated with it and that SHPO concurrence would be needed prior to any FWW authorization.
  - Darren Stanker stated that the project would likely require Riparian Zone mitigation. The team was thinking of using the county owned Mountain View Golf Course for this, however, the park is Green Acres (GA)encumbered. The design team would request that the area used for riparian replanting not be subject to a deed restriction as that would require a GA diversion.
  - Pete DeMeo indicated that if the project added more than 0.25 acres of new impervious the water quality requirements in the Stormwater Rule would need to be met. Mike Tronccone indicated that that PB would work on the design to get the new impervious area below the limit
  - The project will disturb more that 1 acre of land so the recharge and water quantity requirements will need to be met.
  - Pete DeMeo indicated that instead of doing HEC-RAS profiles for the 2 and 10 year storm events PB could run a series of flows to determine what impact the proposed improvements would have on the waterways.

COUNTY OF MERCER NEW JERSEY  
DEPARTMENT OF  
TRANSPORTATION & INFRASTRUCTURE  
DIVISION OF BRIDGE ENGINEERING

RECONSTRUCTION OF COUNTY BRIDGES  
BEAR TAVERN ROAD (CR 579) BRIDGE #214.2 OVER JACOBS CREEK &  
JACOBS CREEK ROAD BRIDGE #4-215.1 OVER EWING CREEK  
FRESHWATER WETLANDS INDIVIDUAL PERMIT

TOWNSHIPS OF HOPEWELL AND EWING  
MERCER COUNTY, NEW JERSEY

UTILITIES

SANITARY FORCE MAIN: HOPEWELL VALLEY REGIONAL SCHOOL DISTRICT  
425 S. MAIN ST, PENNINGTON, NJ 08534  
CONTACT PERSON: NORMAN TORKELSON (609) 737-4000 EXT 2801

WATER: TRENTON WATER CO. AND CITY OF TRENTON DEPT OF  
PUBLIC WORKS DIVISION OF WATER AND SEWER  
333 COURTLAND STREET, P.O. BOX 528, TRENTON, NJ 08604  
CONTACT PERSON: DILIP PATEL (609) 989-3222

TELEPHONE: VERIZON  
777 PARKWAY AVE, EWING, NJ 08618  
CONTACT PERSON: BILL FOLEY (609) 530-9930

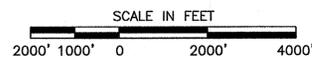
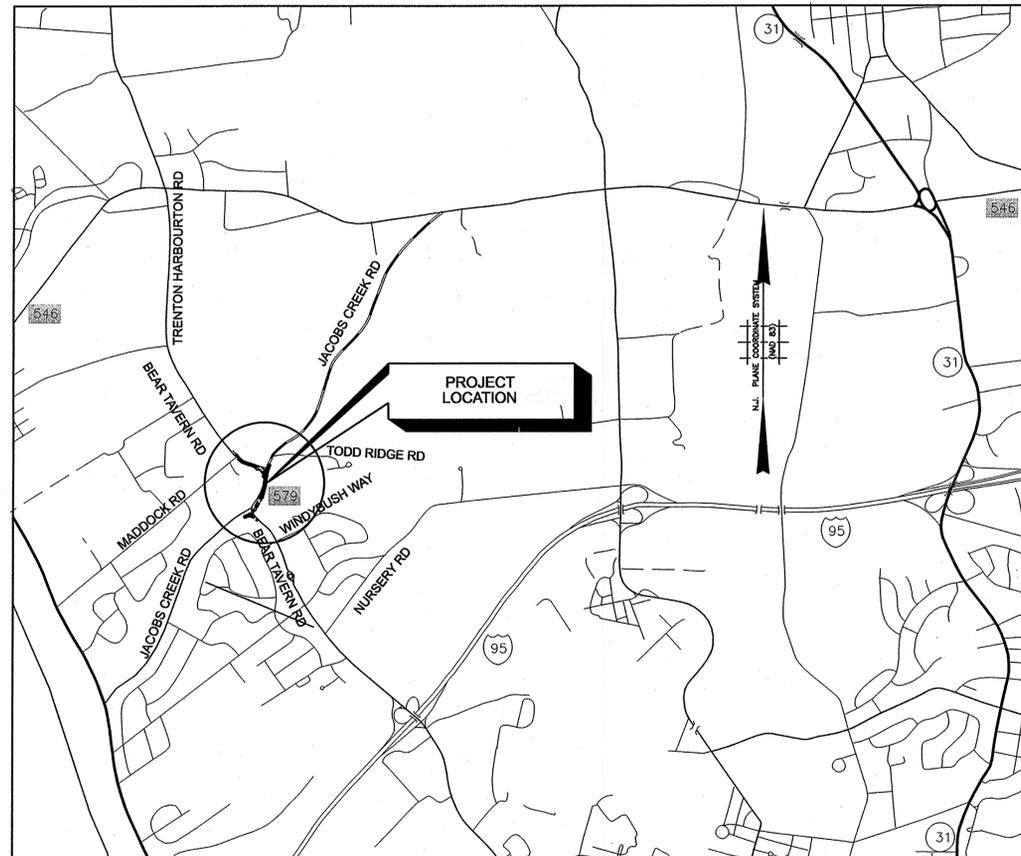
TELEPHONE: VERIZON CONDUIT ENGINEERING  
5100 BELMAR BLVD, FARMINGDALE, NJ 07727  
CONTACT PERSON: JASON CASCIO (732) 938-9928

GAS: PSE&G  
300 CONNETTICUT DR, BURLINGTON, NJ 08016  
CONTACT PERSON: DENNIS GUNN (609) 239-2405

ELECTRIC: PSE&G  
472 WESTON CANAL RD, SOMERSET, NJ 08873  
CONTACT PERSON: SAMUEL SMITH (732) 764-3239

CABLE: COMCAST  
940 PROSPECT ST, TRENTON, NJ 08618  
CONTACT PERSON: JIM LIPCSEY (609) 394-8587

SEWER: EWING-LAWRENCE SEWERAGE AUTHORITY  
600 WHITEHEAD RD, LAWRENCEVILLE, NJ 08648  
CONTACT PERSON: ROBERT FILLER (609) 587-4061



KEY MAP

NEW JERSEY DEPARTMENT OF TRANSPORTATION  
STANDARD SPECIFICATIONS OF 2007  
WITH AMENDMENTS THERETO TO GOVERN

INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
1	KEY MAP
2-4	FRESHWATER WETLAND INDIVIDUAL PERMIT PLANS
5-10	CROSS SECTIONS

STANDARD ROADWAY CONSTRUCTION - TRAFFIC CONTROL - BRIDGE CONSTRUCTION DETAILS BOOKLET, DATED 2007, IS APPLICABLE TO THIS PROJECT EXCEPT FOR THOSE DETAILS CONTAINED HEREIN.

ALL BIDDERS MAY PURCHASE THIS BOOKLET THROUGH THE COUNTY ENGINEERING OFFICE AT 640 SOUTH BROAD STREET TRENTON, NEW JERSEY, 08650-0068 (609-989-6600)

PREPARED AND RECOMMENDED FOR APPROVAL BY:

**PARSONS  
BRINCKERHOFF**

2000 LENOX DRIVE, 3RD FLOOR  
LAWRENCEVILLE, NJ 08648  
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

*Michael Troncone*  
MIKE TRONCONE, P.E.  
PROFESSIONAL ENGINEER NEW JERSEY LICENSE NO. 24GE042019

10/6/11  
DATE

APPROVED BY:

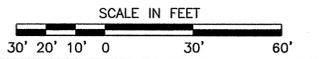
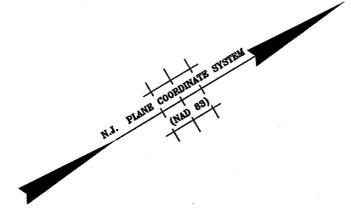
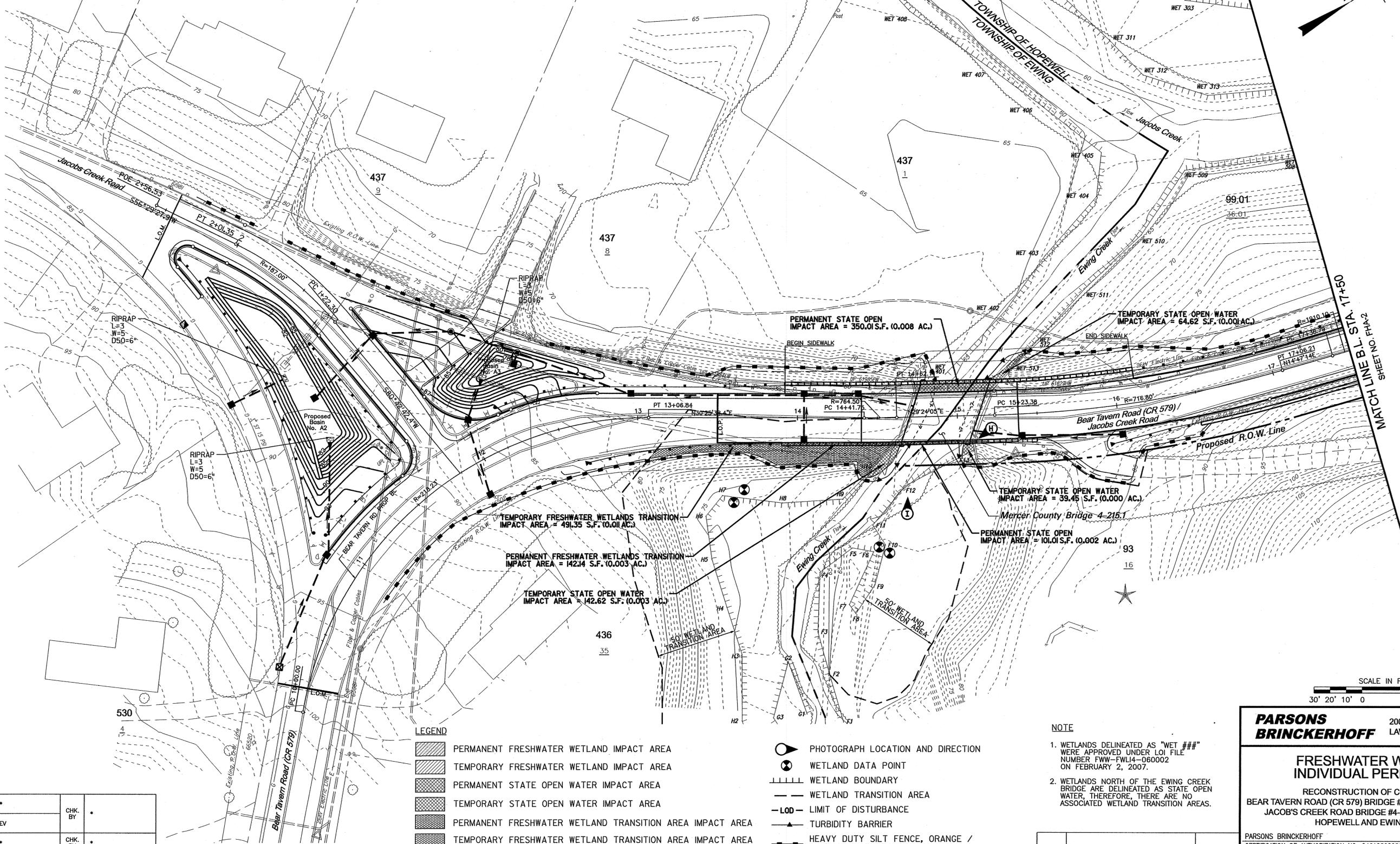
GREGORY SANDUSKY, P.E., P.L.S., MERCER COUNTY ENGINEER  
PROFESSIONAL ENGINEER, PROFESSIONAL LAND SURVEYOR  
NEW JERSEY LICENSE NO. 24GB03675800

DATE

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TOTAL (S.F.)	PERMANENT IMPACTS			TEMPORARY IMPACTS		
	WETLAND (S.F.)	WETLAND TA (S.F.)	STATE OPEN WATER (S.F.)	WETLAND (S.F.)	WETLAND TA (S.F.)	STATE OPEN WATER (S.F.)
	-	142.14	451.02	-	491.35	246.69
TOTAL (ACRES)	-	0.003	0.010	-	0.011	0.005

\* TA = TRANSITION AREA  
S.F. = SQUARE FEET



- LEGEND**
- PERMANENT FRESHWATER WETLAND IMPACT AREA
  - TEMPORARY FRESHWATER WETLAND IMPACT AREA
  - PERMANENT STATE OPEN WATER IMPACT AREA
  - TEMPORARY STATE OPEN WATER IMPACT AREA
  - PERMANENT FRESHWATER WETLAND TRANSITION AREA IMPACT AREA
  - TEMPORARY FRESHWATER WETLAND TRANSITION AREA IMPACT AREA
  - PROPOSED RIPRAP
- PHOTOGRAPH LOCATION AND DIRECTION
  - WETLAND DATA POINT
  - WETLAND BOUNDARY
  - WETLAND TRANSITION AREA
  - LIMIT OF DISTURBANCE
  - TURBIDITY BARRIER
  - HEAVY DUTY SILT FENCE, ORANGE / LIMIT OF DISTURBANCE

**NOTE**

- WETLANDS DELINEATED AS "WET ###" WERE APPROVED UNDER LOI FILE NUMBER FW-14-080002 ON FEBRUARY 2, 2007.
- WETLANDS NORTH OF THE EWING CREEK BRIDGE ARE DELINEATED AS STATE OPEN WATER, THEREFORE, THERE ARE NO ASSOCIATED WETLAND TRANSITION AREAS.

DES. BY	*	CHK. BY	*
DWN. BY	EV	CHK. BY	*
EST. BY	*	CHK. BY	*
SPECS. BY	*	CHK. BY	*
IN CHARGE OF _____			

No.	REVISION	DATE

**PARSONS BRINCKERHOFF** 2000 LENOX DRIVE, 3RD FLOOR LAWRENCEVILLE, NJ 08648

**FRESHWATER WETLAND INDIVIDUAL PERMIT PLAN**

RECONSTRUCTION OF COUNTY BRIDGES BEAR TAVERN ROAD (CR 579) BRIDGE #214.2 OVER JACOBS CREEK & JACOB'S CREEK ROAD BRIDGE #4-215.1 OVER EWING CREEK HOPEWELL AND EWING TOWNSHIP

PARSONS BRINCKERHOFF  
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800

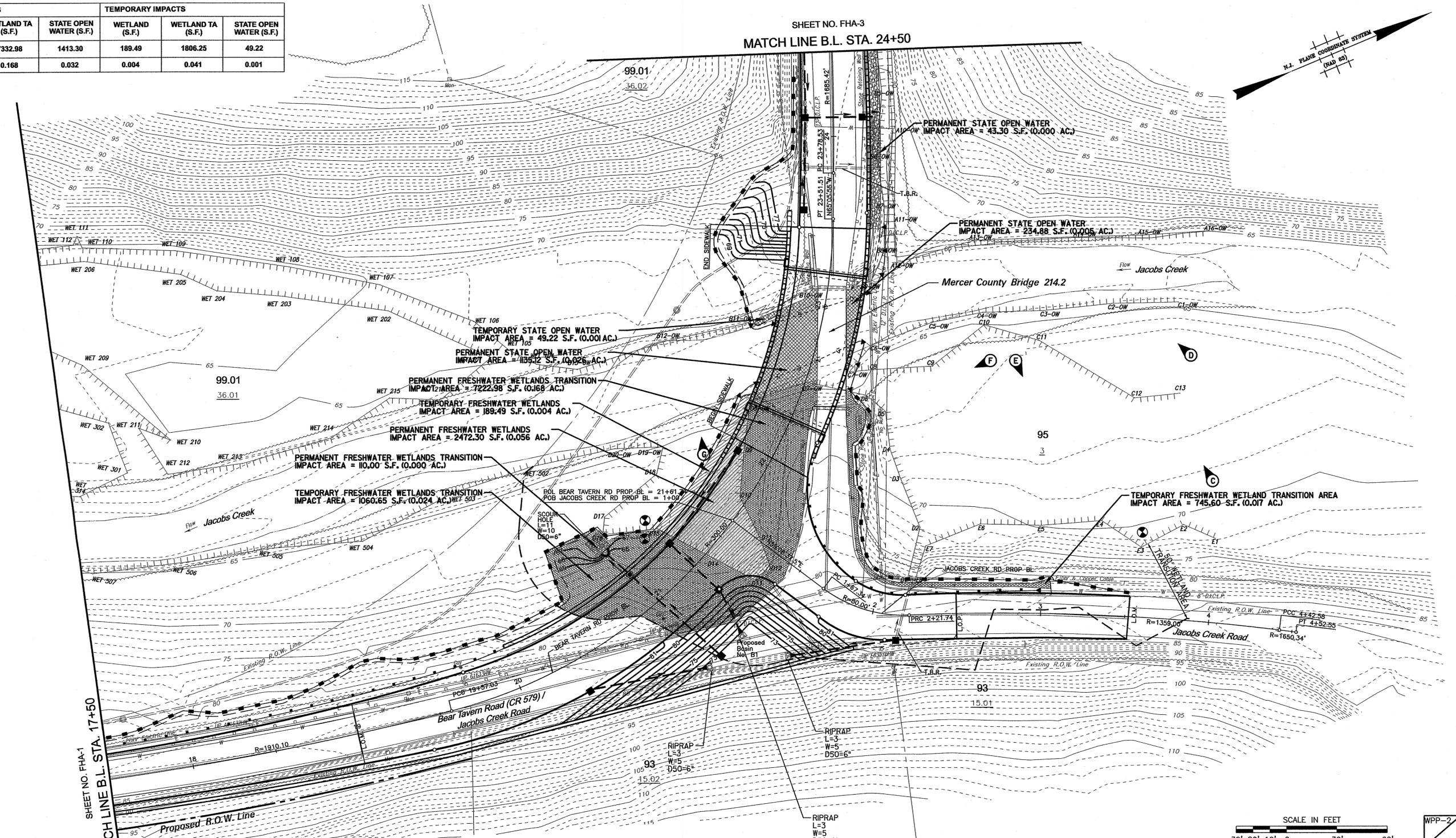
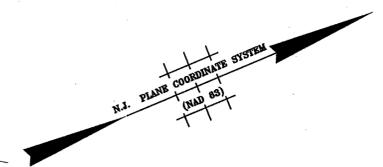
MICHAEL TRONCONE  
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE042019

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PERMANENT IMPACTS	TEMPORARY IMPACTS					
	WETLAND (S.F.)	WETLAND TA (S.F.)	STATE OPEN WATER (S.F.)	WETLAND (S.F.)	WETLAND TA (S.F.)	STATE OPEN WATER (S.F.)
TOTAL (S.F.)	2472.30	7332.98	1413.30	189.49	1806.25	49.22
TOTAL (ACRES)	0.056	0.168	0.032	0.004	0.041	0.001

\* TA = TRANSITION AREA  
 S.F. = SQUARE FEET

SHEET NO. FHA-3  
 MATCH LINE B.L. STA. 24+50



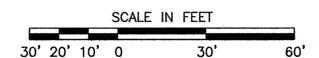
SHEET NO. FHA-1  
 MATCH LINE B.L. STA. 17+50

**LEGEND**

	PERMANENT FRESHWATER WETLAND IMPACT AREA
	TEMPORARY FRESHWATER WETLAND IMPACT AREA
	PERMANENT STATE OPEN WATER IMPACT AREA
	TEMPORARY STATE OPEN WATER IMPACT AREA
	PERMANENT FRESHWATER WETLAND TRANSITION AREA IMPACT AREA
	TEMPORARY FRESHWATER WETLAND TRANSITION AREA IMPACT AREA
	PROPOSED RIPRAP

- PHOTOGRAPH LOCATION AND DIRECTION
- WETLAND DATA POINT
- WETLAND BOUNDARY
- WETLAND TRANSITION AREA
- LIMIT OF DISTURBANCE
- TURBIDITY BARRIER
- HEAVY DUTY SILT FENCE, ORANGE / LIMIT OF DISTURBANCE

**NOTE**  
 1. WETLANDS DELINEATED AS "WET ###" WERE APPROVED UNDER LOI FILE NUMBER FW-14-060002 ON FEBRUARY 2, 2007.



WPP-2  
 WPP-3

DES. BY	*	CHK. BY	*
DWN. BY	EV	CHK. BY	*
EST. BY	*	CHK. BY	*
SPECS. BY	*	CHK. BY	*
IN CHARGE OF			

No.	REVISION	DATE

**PARSONS BRINCKERHOFF**  
 2000 LENOX DRIVE, 3RD FLOOR  
 LAWRENCEVILLE, NJ 08648

**FRESHWATER WETLAND INDIVIDUAL PERMIT PLAN**  
 RECONSTRUCTION OF COUNTY BRIDGES  
 BEAR TAVERN ROAD (CR 579) BRIDGE #214.2 OVER JACOBS CREEK &  
 JACOB'S CREEK ROAD BRIDGE #4-215.1 OVER EWING CREEK  
 HOPEWELL AND EWING TOWNSHIP

PARSONS BRINCKERHOFF  
 CERTIFICATION OF AUTHORIZATION NO. 24G428029800  
  
 MICHAEL TRONCONE  
 NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE042019

ehx.tb

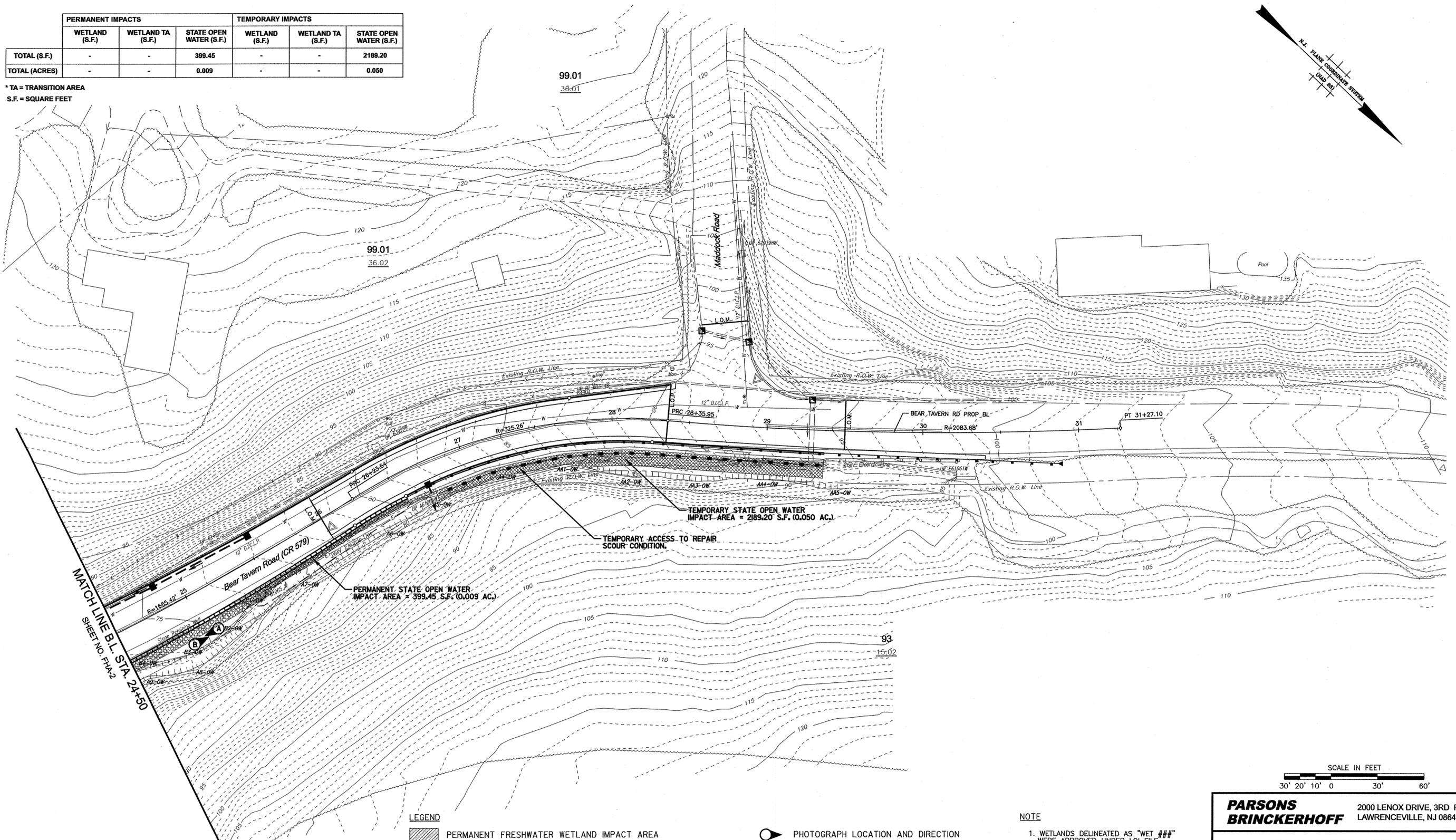
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PARSONS BRINCKERHOFF T:\S2149\_Mercer\_County\_Bear\_Tavern\_Road\_van\_permit\wpp-03.dgn

TOTAL (S.F.)	PERMANENT IMPACTS			TEMPORARY IMPACTS		
	WETLAND (S.F.)	WETLAND TA (S.F.)	STATE OPEN WATER (S.F.)	WETLAND (S.F.)	WETLAND TA (S.F.)	STATE OPEN WATER (S.F.)
	-	-	399.45	-	-	2189.20
TOTAL (ACRES)	-	-	0.009	-	-	0.050

\* TA = TRANSITION AREA  
S.F. = SQUARE FEET



MATCH LINE B.L. STA. 24+50  
SHEET NO. FH42

**LEGEND**

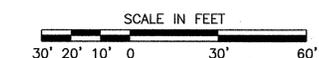
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- TEMPORARY FRESHWATER WETLAND IMPACT AREA
- PERMANENT STATE OPEN WATER IMPACT AREA
- TEMPORARY STATE OPEN WATER IMPACT AREA
- PERMANENT FRESHWATER WETLAND TRANSITION AREA IMPACT AREA
- TEMPORARY FRESHWATER WETLAND TRANSITION AREA IMPACT AREA
- PROPOSED RIPRAP

- PHOTOGRAPH LOCATION AND DIRECTION
- WETLAND DATA POINT
- WETLAND BOUNDARY
- WETLAND TRANSITION AREA
- LIMIT OF DISTURBANCE
- TURBIDITY BARRIER
- HEAVY DUTY SILT FENCE, ORANGE / LIMIT OF DISTURBANCE

**NOTE**

1. WETLANDS DELINEATED AS "WET ###" WERE APPROVED UNDER LOI FILE NUMBER FW14-FW14-060002 ON FEBRUARY 2, 2007.

No.	REVISION	DATE



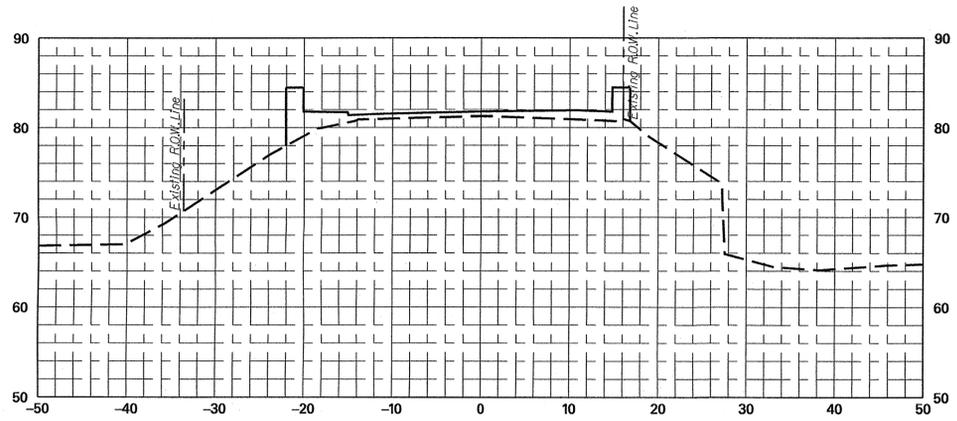
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WPP-3

**PARSONS BRINCKERHOFF** 2000 LENOX DRIVE, 3RD FLOOR  
LAWRENCEVILLE, NJ 08648

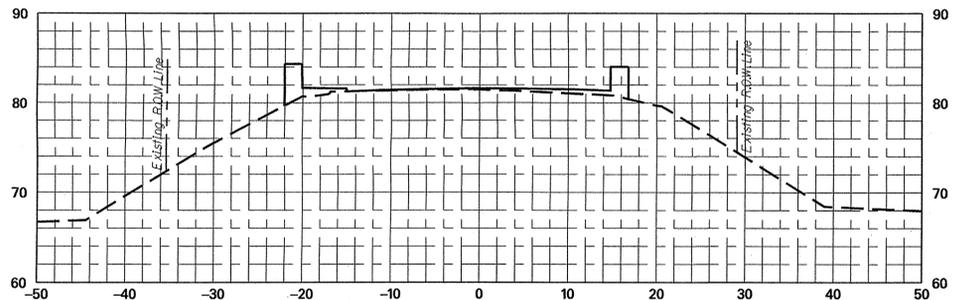
**FRESHWATER WETLAND INDIVIDUAL PERMIT PLAN**

RECONSTRUCTION OF COUNTY BRIDGES  
BEAR TAVERN ROAD (CR 579) BRIDGE #214.2 OVER JACOBS CREEK &  
JACOB'S CREEK ROAD BRIDGE #4-215.1 OVER EWING CREEK  
HOPEWELL AND EWING TOWNSHIP

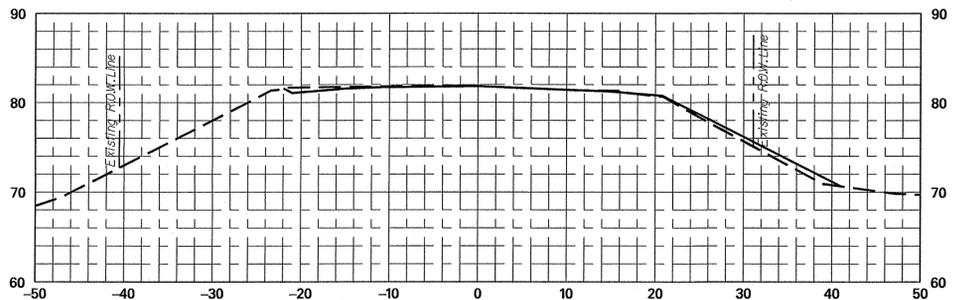
PARSONS BRINCKERHOFF  
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800  
  
MICHAEL TRONCONE  
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE042019



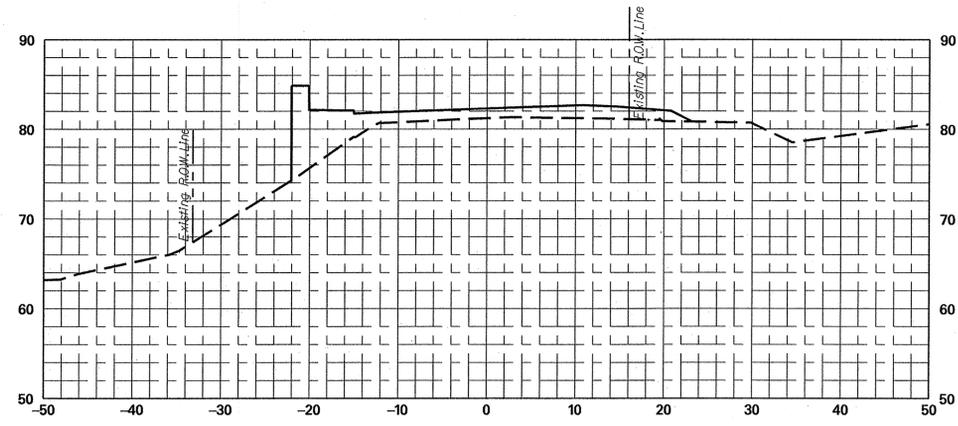
14+50



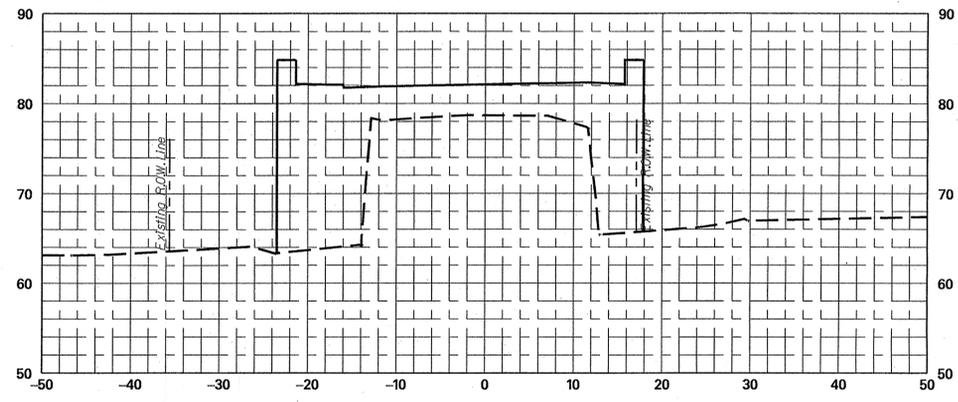
14+00



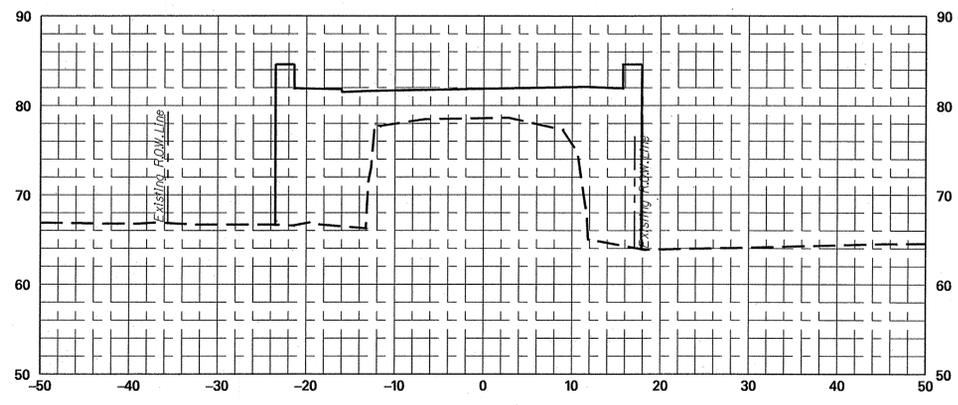
13+50



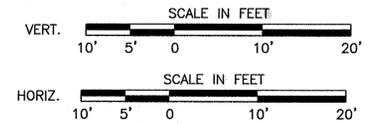
15+50



15+13 AH (SKEWED)



14+70 BK (SKEWED)



STA. 13+50 TO STA. 15+50

DES. BY	*	CHK. BY	*
DWN. BY	EV	CHK. BY	*
EST. BY	*	CHK. BY	*
SPECS. BY	*	CHK. BY	*
IN CHARGE OF _____			

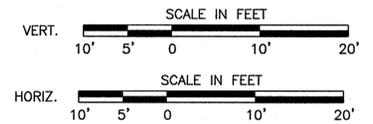
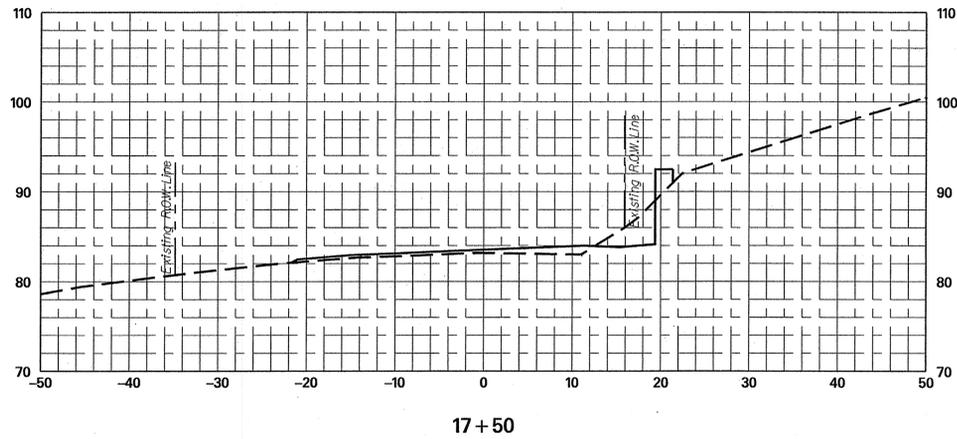
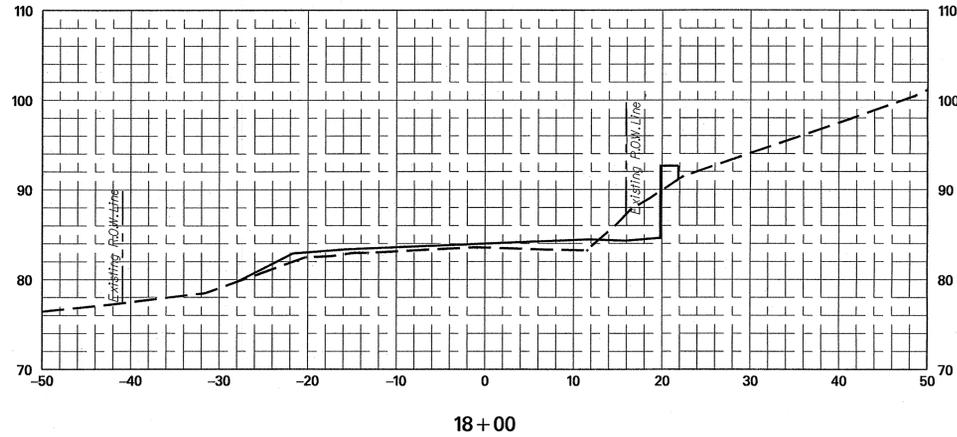
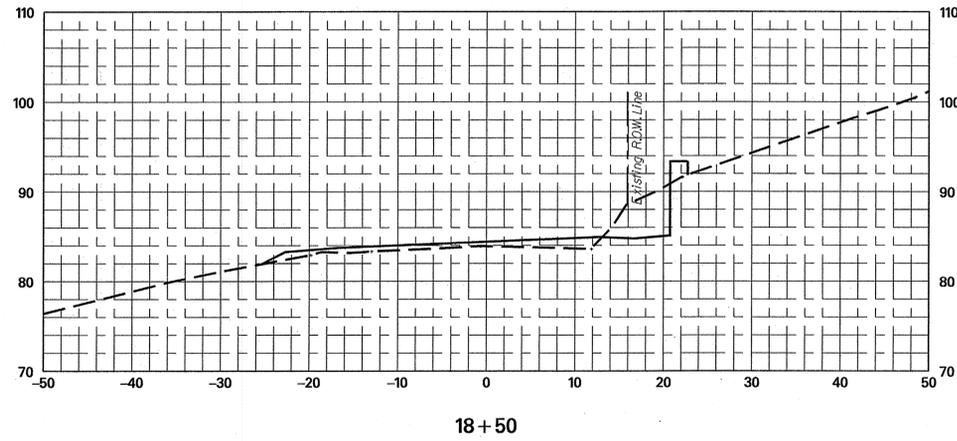
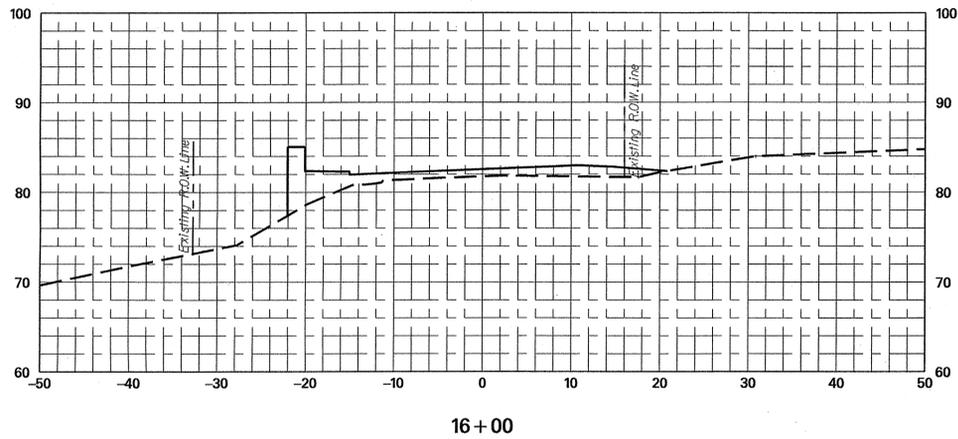
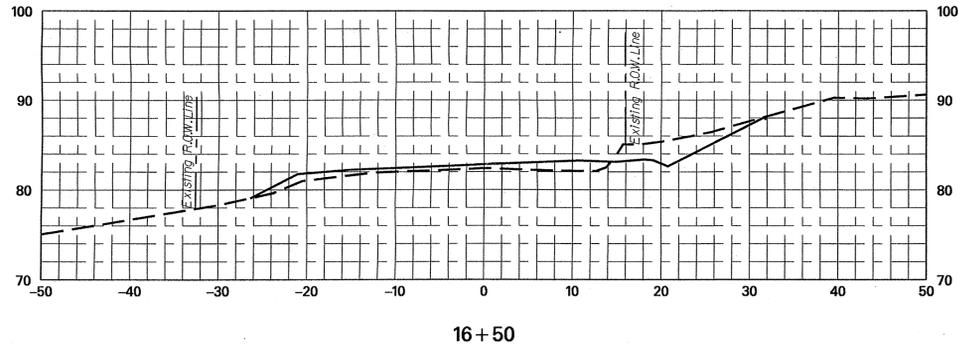
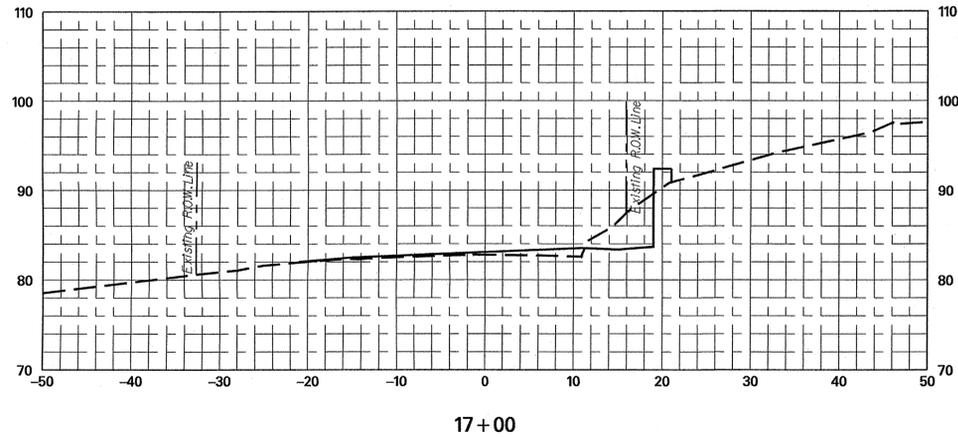
No.	REVISION	DATE

**PARSONS BRINCKERHOFF** 2000 LENOX DRIVE, 3RD FLOOR  
LAWRENCEVILLE, NJ 08648

**FRESHWATER WETLAND CROSS SECTIONS**

RECONSTRUCTION OF COUNTY BRIDGES  
BEAR TAVERN ROAD (CR 579) BRIDGE #214.2 OVER JACOBS CREEK &  
JACOB'S CREEK ROAD BRIDGE #4-215.1 OVER EWING CREEK  
HOPEWELL AND EWING TOWNSHIP

PARSONS BRINCKERHOFF  
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800  
*Michael Tronccone*  
MICHAEL TRONCONE  
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE042019



STA. 16+00 TO STA. 18+50

**PARSONS BRINCKERHOFF** 2000 LENOX DRIVE, 3RD FLOOR  
LAWRENCEVILLE, NJ 08648

**FRESHWATER WETLAND CROSS SECTIONS**

RECONSTRUCTION OF COUNTY BRIDGES  
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PARSONS BRINCKERHOFF  
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800  
*Michael Tronccone*  
MICHAEL TRONCONE  
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE042019

DES. BY	*	CHK. BY	*
DWN. BY	EV	CHK. BY	*
EST. BY	*	CHK. BY	*
SPECS. BY	*	CHK. BY	*
IN CHARGE OF _____			

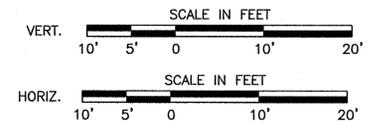
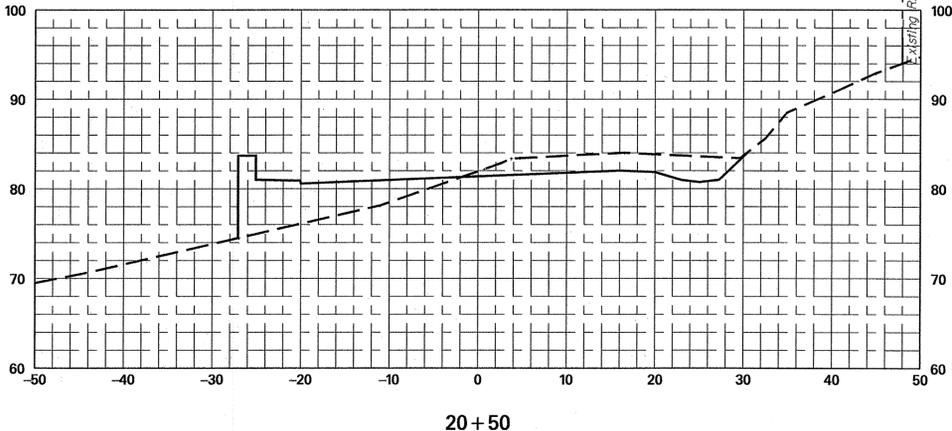
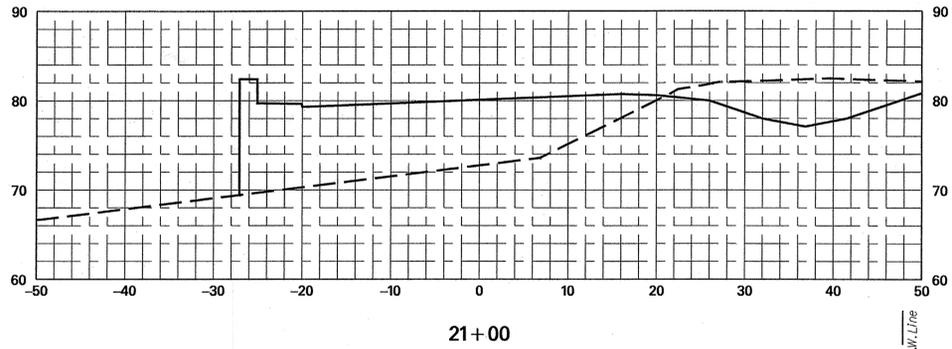
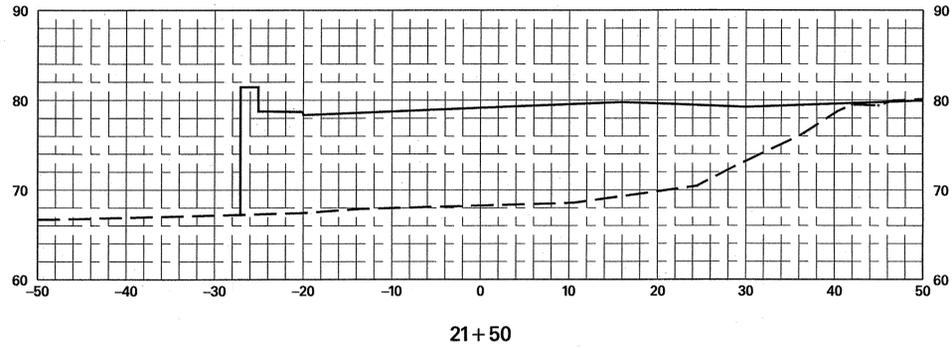
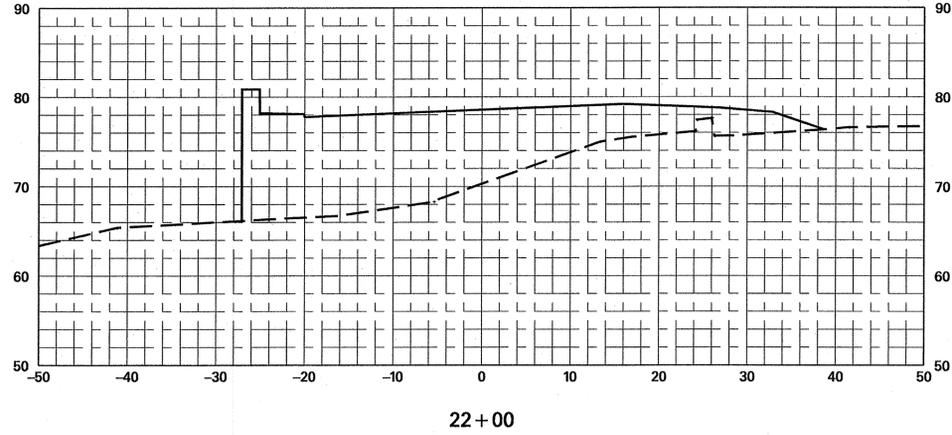
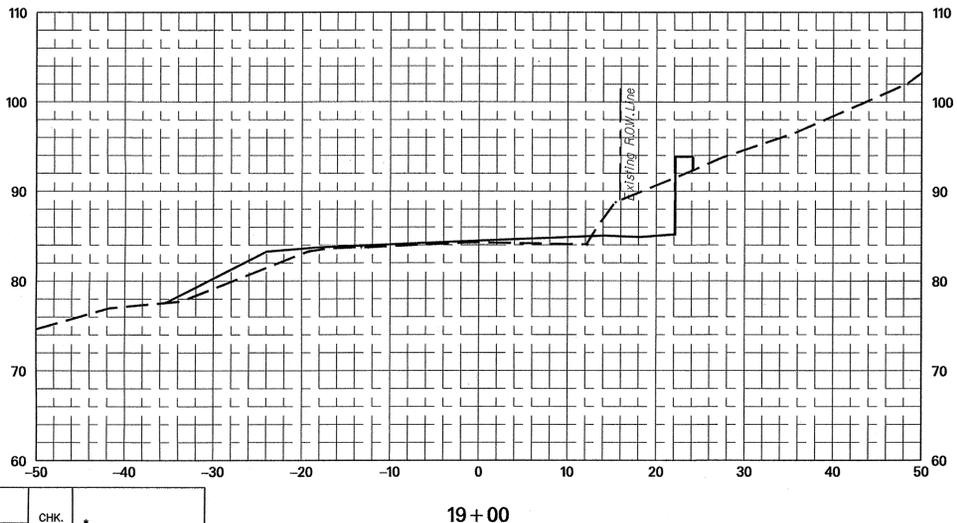
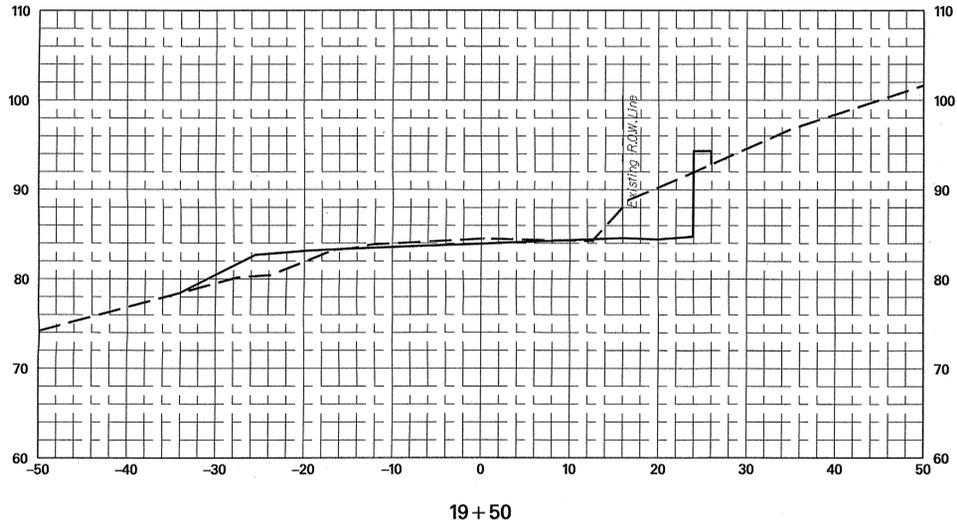
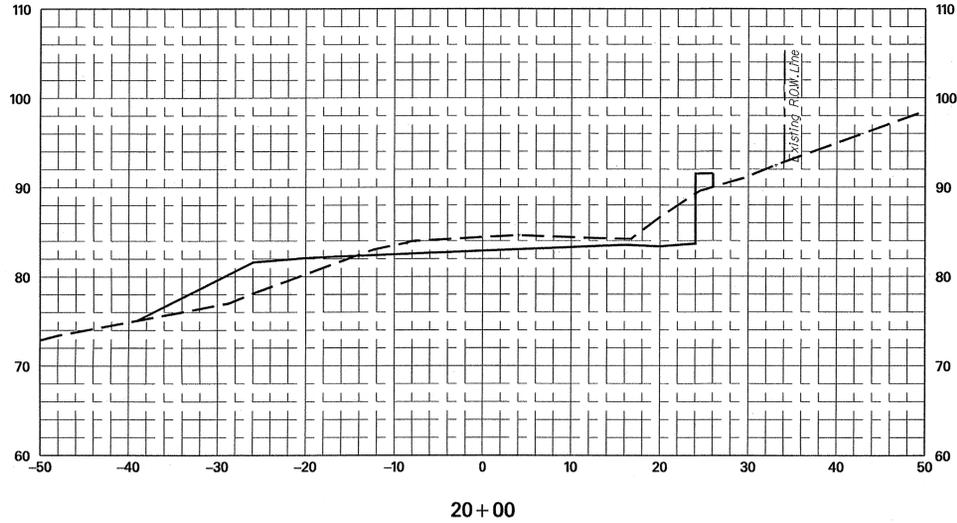
No.	REVISION	DATE

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PARSONS BRINCKERHOFF



STA. 19+00 TO STA. 22+00

**PARSONS BRINCKERHOFF** 2000 LENOX DRIVE, 3RD FLOOR  
LAWRENCEVILLE, NJ 08648

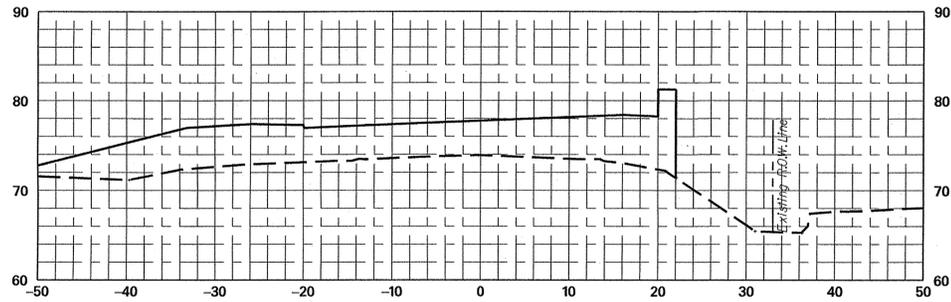
**FRESHWATER WETLAND CROSS SECTIONS**

RECONSTRUCTION OF COUNTY BRIDGES  
BEAR TAVERN ROAD (CR 579) BRIDGE #214.2 OVER JACOBS CREEK &  
JACOB'S CREEK ROAD BRIDGE #4-215.1 OVER EWING CREEK  
HOPEWELL AND EWING TOWNSHIP

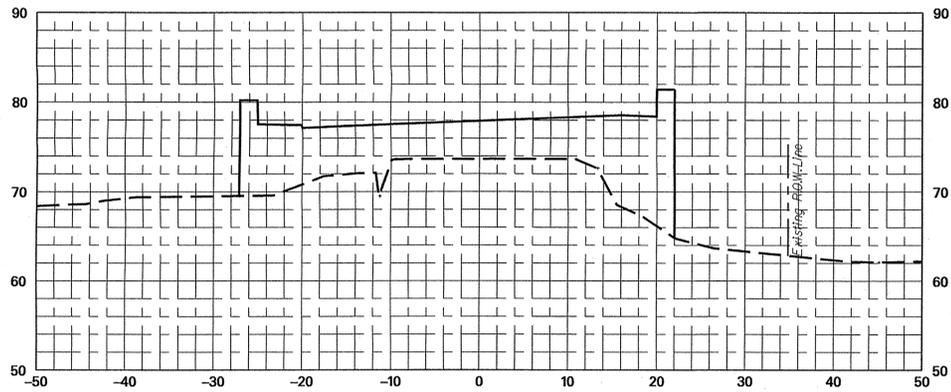
PARSONS BRINCKERHOFF  
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800  
*Michael Tronccone*  
MICHAEL TRONCONE  
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE042019

DES. BY	*	CHK. BY	*
DWN. BY	EV	CHK. BY	*
EST. BY	*	CHK. BY	*
SPECS. BY	*	CHK. BY	*
IN CHARGE OF _____			

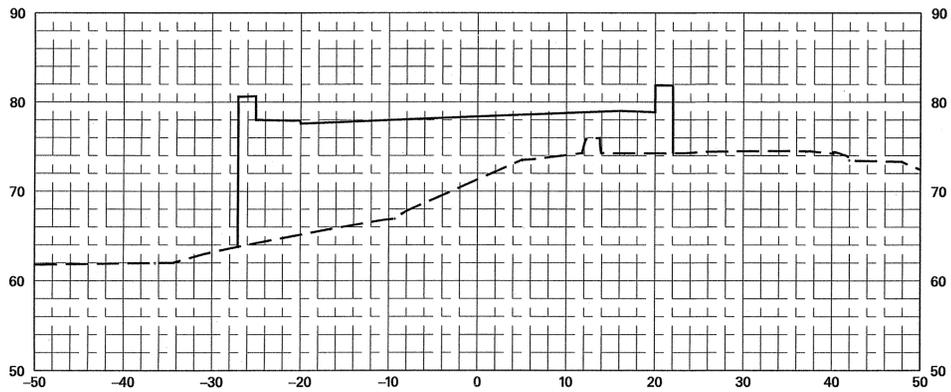
No.	REVISION	DATE



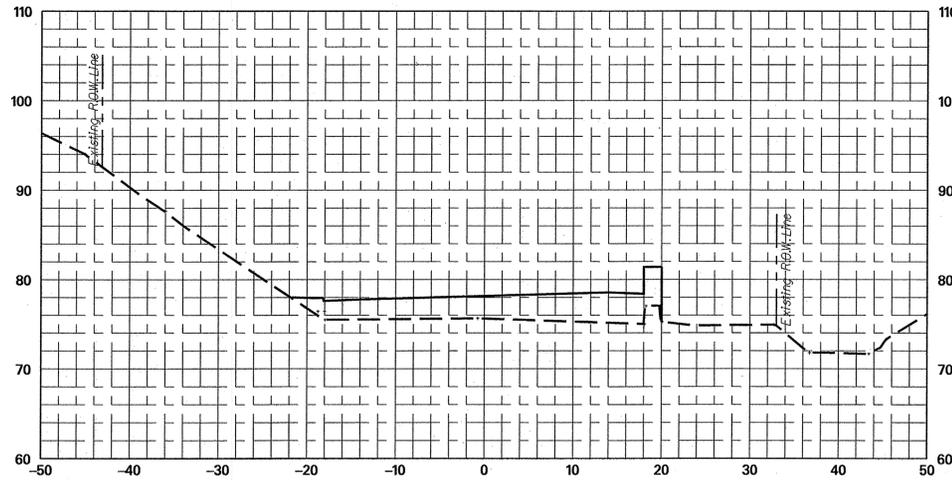
23+50



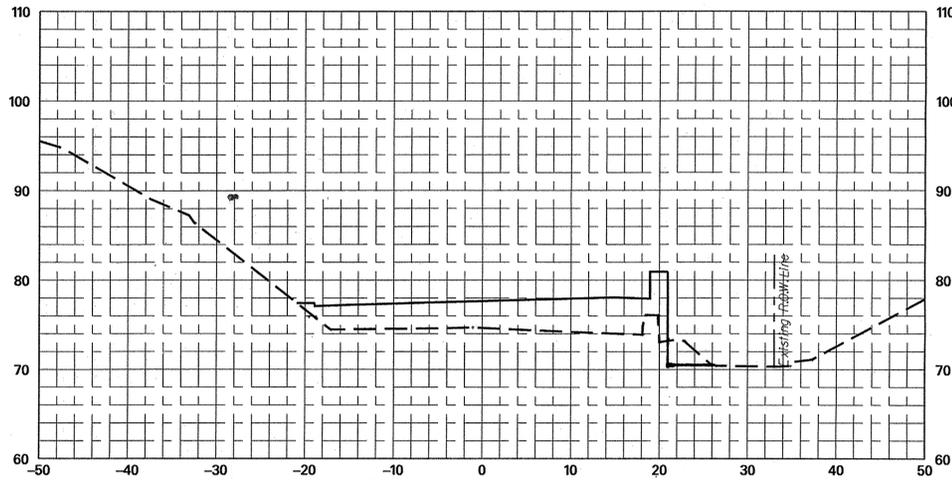
23+20 AH (SKEWED)



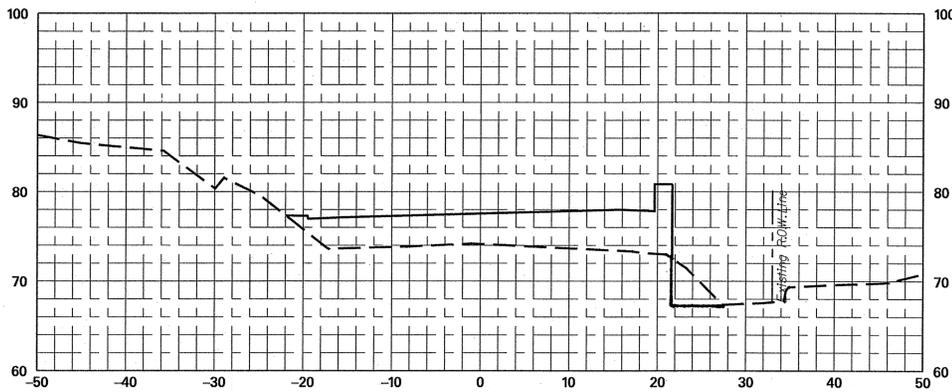
22+30 BK (SKEWED)



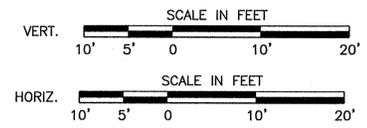
25+00



24+50



24+00



STA. 22+30 TO STA. 25+00

**PARSONS BRINCKERHOFF** 2000 LENOX DRIVE, 3RD FLOOR  
LAWRENCEVILLE, NJ 08648

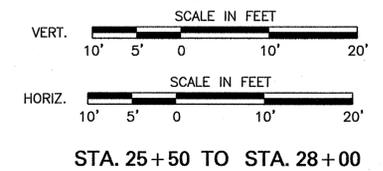
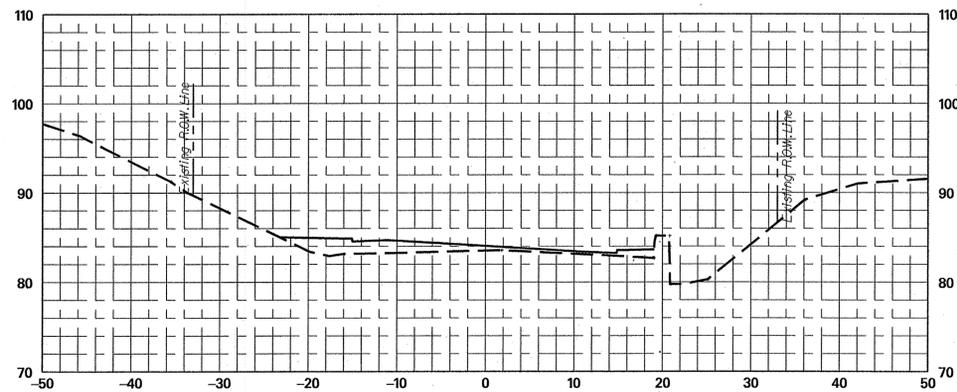
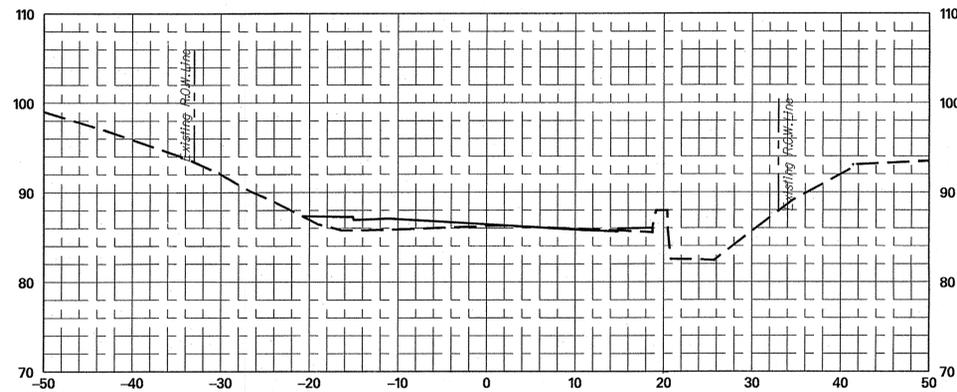
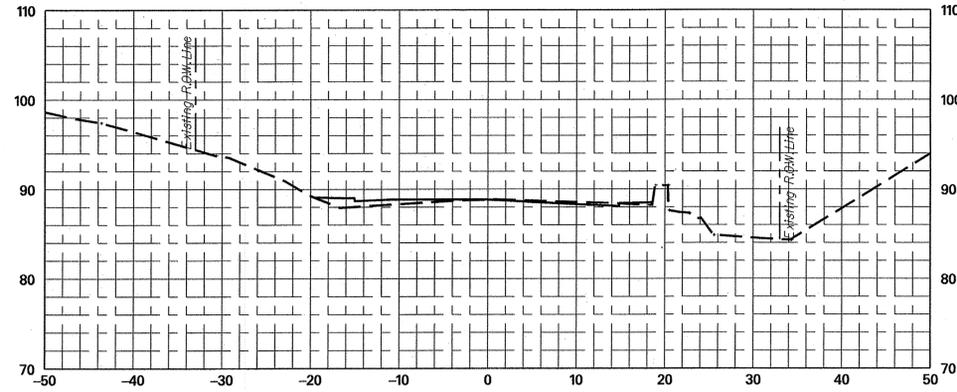
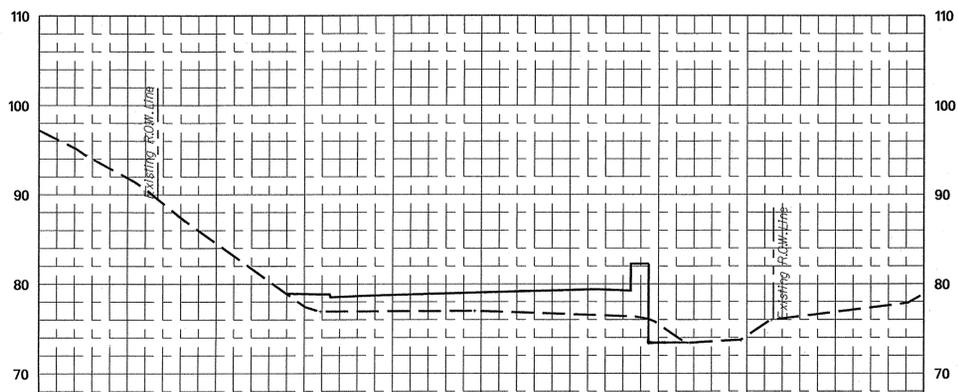
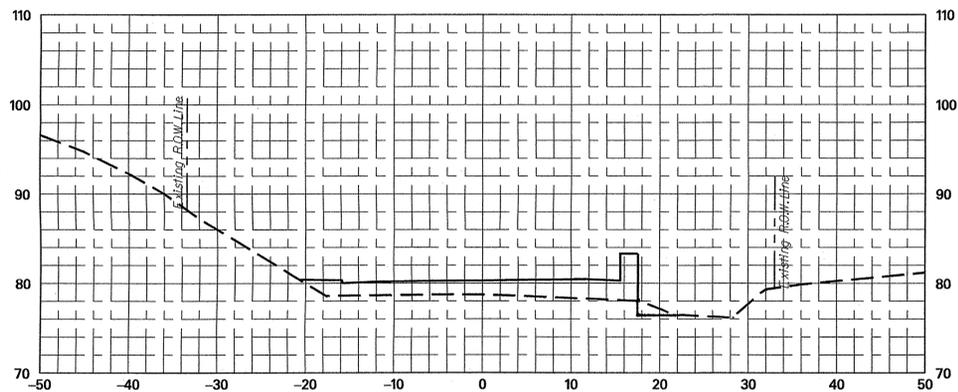
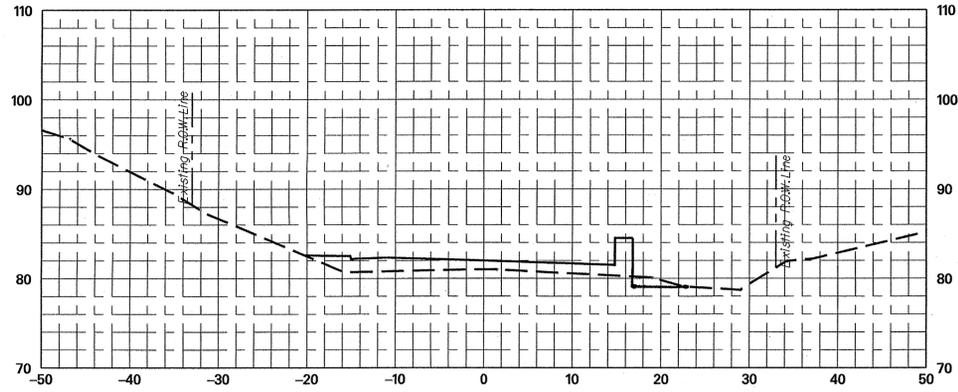
**FRESHWATER WETLAND CROSS SECTIONS**

RECONSTRUCTION OF COUNTY BRIDGES  
BEAR TAVERN ROAD (CR 579) BRIDGE #214.2 OVER JACOBS CREEK &  
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HOPEWELL AND EWING TOWNSHIP

PARSONS BRINCKERHOFF  
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800  
*Michael Tronccone*  
MICHAEL TRONCONE  
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE042019

DES. BY	*	CHK. BY	*
DWN. BY	EV	CHK. BY	*
EST. BY	*	CHK. BY	*
SPECS. BY	*	CHK. BY	*
IN CHARGE OF _____			

No.	REVISION	DATE



DES. BY	*	CHK. BY	*
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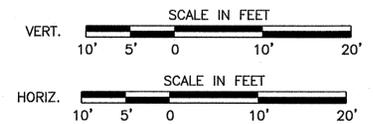
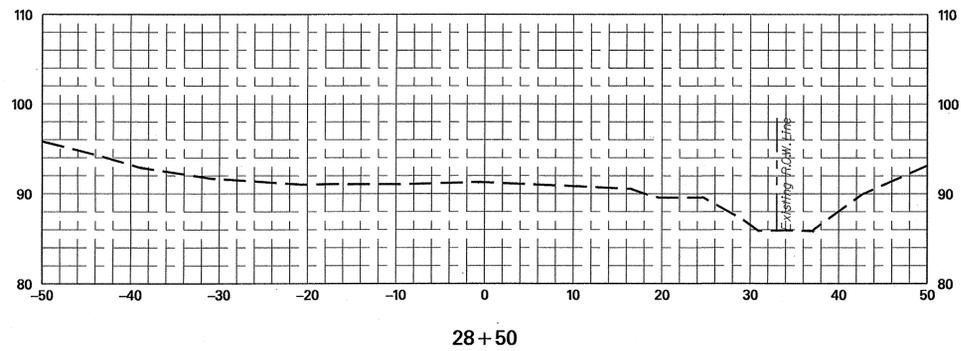
**PARSONS BRINCKERHOFF** 2000 LENOX DRIVE, 3RD FLOOR  
LAWRENCEVILLE, NJ 08648

**FRESHWATER WETLAND CROSS SECTIONS**

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PARSONS BRINCKERHOFF  
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800

*Michael Tronccone*  
MICHAEL TRONCONE  
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE042019



STA. 28+50 TO STA. 28+50

**PARSONS BRINCKERHOFF** 2000 LENOX DRIVE, 3RD FLOOR  
LAWRENCEVILLE, NJ 08648

**FRESHWATER WETLAND  
CROSS SECTIONS**

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MICHAEL TRONCONE  
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE042019

DES. BY	*	CHK. BY	*
DWN. BY	EV		
EST. BY	*	CHK. BY	*
SPECS. BY	*	CHK. BY	*
IN CHARGE OF _____			

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