APPENDIX B: Section 106 - Programmatic Agreement

PROJECT PROGRAMMATIC AGREEMENT

Among

Federal Transit Administration (FTA) New Jersey Transit Corporation (NJ TRANSIT) New Jersey State Historic Preservation Office (NJ SHPO)

Regarding the NJ TRANSITGRID Traction Power System Hudson County, New Jersey

WHEREAS, NJ TRANSIT is proposing to construct the NJ TRANSITGRID Traction Power System Project ("the proposed Project" or "Project") a first-of-its-kind "microgrid", including a Main Facility (hereinafter the "Central Power Plant") within a preferred site location at the Koppers Koke Site in the Town of Kearny, Hudson County, New Jersey, in order to enable trains to operate during a commercial grid outage on portions of the NJ TRANSIT and the National Railroad Passenger Corporation (Amtrak) systems, including some sections of the Northeast Corridor, Morris & Essex Line, and the Hudson-Bergen Light Rail (HBLR) Transit System;

WHEREAS, the Project involves the construction of a microgrid that will consist of an approximately 104- to 140-megawatt natural gas-fired electric power generating plant and project-related substations, transformers, and frequency converters on a preferred site location consisting of an approximately 20-acre parcel in the Koppers Koke Site with interconnections to existing high-pressure natural gas pipelines and a new metering station to be installed within a six-acre parcel located south of the Morris & Essex Line, the construction of a new traction power substation (the new Kearny Substation) to replace Amtrak's existing Substation No. 41, the construction of a new NJ TRANSIT substation (the NJ TRANSITGRID East Hoboken Substation), a "nanogrid" (consisting of natural gas-powered emergency generators at HBLR Headquarters in Jersey City) and the construction of electrical transmission lines of varying sizes in either in-ground duct banks or above-ground monopoles ranging 30 ft to a maximum of 220 feet in height, including approximately 5 miles of lines linking the Central Power Plant site to the NJ TRANSIT Mason Substation, Amtrak's new Kearny Substation, the NJ TRANSITGRID East Hoboken Substation, and Henderson Street Substation; and 14.4 miles of new feeder lines that will power the HBLR Headquarters facility;

WHEREAS, NJ TRANSIT is the Project sponsor and the Federal Transit Administration (FTA) is serving as the NJ TRANSITGRID lead federal agency pursuant to the National Environmental Policy Act ([NEPA], codified as 42 U.S.C. § 4321 et seq. (1969)), and is the federal agency responsible for compliance with Section 106 of the National Historic Preservation Act of 1966 (formerly at 16 U.S.C. § 470f, as amended at 54 U.S.C. § 300101 et seq. (2016), and hereinafter "Section 106");

WHEREAS, pursuant to 36 CFR § 800.4, FTA and NJ TRANSIT, in conjunction with the New Jersey State Historic Preservation Office (NJ SHPO), have identified the Area of Potential Effects (APE) for the proposed Project, and determined that the APE will be the areas where potential effects on historic properties caused by the proposed Project may occur (see Attachment 1);

WHEREAS, historic properties within the APE were identified and evaluated by NJ TRANSIT in consultation with FTA and NJ SHPO as documented in the *Historic Architectural Resources Background Survey* (HARBS) and *Effects Assessment* (EA) Report (RGA, Inc. 2017a), *Phase LA Archaeological Survey* (Phase IA) (RGA, Inc. 2017b) and supplemental cultural resource submissions (RGA, Inc. 2017c and 2017d) prepared for the proposed Project. As part of this process, FTA and NJ TRANSIT identified properties that appear to meet the criteria for listing in the National Register of Historic Places in 36 CFR Part 63 (herein "Historic Places Criteria"), and for which NJ SHPO has rendered determinations of eligibility and, therefore, qualify for Section 106 consideration. FTA, in consultation with NJ SHPO, has also determined that these properties constitute Historic Resources and qualify for Section 106 protection;

WHEREAS, as documented in a letter from Katherine Marcopul (Deputy State Historic Preservation Officer, NJ SHPO) to Dara Callender (Manager, Environmental Compliance, Environment, Energy and Sustainability Unit, NJ TRANSIT) dated April 24, 2018 (see Attachment 2), FTA and NJ TRANSIT, in consultation with NJ SHPO, have identified eighty (80) historic resources in the proposed Project APE that qualify for Section 106 protection. These historic resources are described and mapped in the HARBS and EA Report and Phase IA survey completed for this Project;

WHEREAS, FTA has determined that construction of this Project as proposed would have an adverse visual effect on seven (7) historic resources:

- Old Main Delaware, Lackawanna and Western Railroad Historic District, multiple municipalities (NJ SHPO Opinion: 9/24/1996);
- Lower Hack Draw Bridge, Town of Kearny and City of Jersey City (NJ SHPO Opinion: 9/18/1996);
- Hackensack River Lift Bridges Historic District, Town of Kearny and City of Jersey City (NJ SHPO Opinion: 5/3/2002);
- Old and New Bergen Tunnels, City of Jersey City (NJ SHPO Opinion: 5/8/1998);
- West End Though Truss Bridges, City of Jersey City (NJ SHPO Opinion: 5/8/1998);
- West End Interlocking Tower, City of Jersey City (NJ SHPO Opinion: 1/20/1999); and
- Delaware, Lackawanna and Western Railroad Boonton Line Historic District, Eastern Segment (NJ SHPO Opinion: 6/11/2013).

WHEREAS, the HARBS and EA Report (RGA, Inc. 2017a), Phase IA (RGA. Inc. 2017b) and supplemental cultural resource submissions (RGA, Inc. 2017c and 2017d) prepared for the Project indicate several areas of high archaeological sensitivity for potential archaeological resources within the Project's APE which could be affected during Project construction for this Agreement; and

WHEREAS, FTA, in consultation with NJ TRANSIT and NJ SHPO, has contacted and consulted with the Tribal Preservation Officers of the Delaware Nation, the Delaware Tribe, the Eastern Shawnee Tribe of Oklahoma and the Shawnee Tribe in accordance with 36 CFR § 800.6(a); and

WHEREAS, the Tribal Preservation Officer of the Delaware Tribe (in a letter dated July 26, 2017) declined to participate in this Programmatic Agreement and requested halting of construction, consultation with a qualified archaeologist, and notification of the Delaware Tribe only in the unlikely

event of unanticipated unearthing of unidentified human remains or cultural artifacts are discovered during construction, and

WHEREAS, NJ TRANSIT has consulted with the City of Jersey City, the City of Bayonne, the Town of Kearny, the Township of North Bergen, the City of Union City, the City of Hoboken, and the Township of Weehawken, Hudson County;

WHEREAS, NJ TRANSIT has invited local historic preservation commissions and other consulting parties to participate as consulting parties in the Section 106 process in accordance with 36 CFR § 800.6(c)(3)

WHEREAS, in accordance with 36 CFR § 800.6(a)(1), FTA has notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination with specified documentation and on May 16, 2019 the ACHP stated it would not participate in the consultation (see Attachment 3) pursuant to 36 CFR § 800.6(a)(1)(iii) and (iv); and

WHEREAS, FTA, NJ TRANSIT, and NJ SHPO have agreed to enter into a Programmatic Agreement (PA) pursuant to 36 CFR § 800.14(b) to implement a series of stipulations to mitigate identified adverse effects to above-ground historic architectural resources; to investigate, record, and document resources that will be adversely affected if they have not already been documented to Historic American Buildings Survey (HABS) Level III Standards prior to construction; to undertake a comprehensive historic context document of the Old Main Delaware, Lackawanna and Western Railroad Historic District (see Attachment 4) (U.S. Department of the Interior, National Parks Service, 1990 revised 1995, *National Register Bulletin; How to Apply the National Register Criteria for Evaluation*, Section V); to design and install a multi-component historic interpretive display at an appropriate location identified in consultation between NJ TRANSIT and NJ SHPO; and to prepare an archaeological monitoring plan to be approved by NJ SHPO prior to construction and perform archaeological monitoring (see Attachment 5 for areas of archeological sensitivity) and documentation in accordance with said plan during construction for FTA and NJ SHPO review and concurrence;

NOW, THEREFORE, FTA, NJ TRANSIT, and NJ SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effects of the undertaking on historic resources:

STIPULATIONS

FTA and NJ TRANSIT, in consultation with NJ SHPO, shall ensure that the following measures are carried out:

I. PROTOCOLS FOR A COMPREHENSIVE HISTORIC CONTEXT DOCUMENT

NJ TRANSIT will undertake the development and completion of a comprehensive historic context document utilizing existing literature, reports and studies for the Old Main Delaware, Lackawanna and Western Railroad Historic District that begins at Hoboken Terminal and Yard in Hudson County and ends at the Delaware River in Warren County (see Attachment 4). In the context document, NJ TRANSIT shall bring together all existing documentation including but not limited to those listed in Attachment 6 into a single, coherent, historic context document and will identify areas where there are gaps in the current photographic and/or historic record. NJ TRANSIT shall ensure that the context document includes a comprehensive evaluation and mapping for contributing and key

contributing resources with graphic representative examples to include but not be limited to: signal houses, historic catenaries, tunnels, viaducts, culverts, rail yards, engine houses, shop buildings, turntables, substations, interlocking towers, stations, and bridges. NJ TRANSIT also shall include in the context document updated information on the existence, condition, and integrity of the previously surveyed resources within the APE (stations, bridges and railroad corridor viewsheds).

NJ TRANSIT will provide a copy of the document to NJ SHPO for review and approval. NJ TRANSIT shall complete the document within six (6) months of the letting the main construction contract and prior to the initiation of any demolition or construction activity.

II. PROTOCOLS FOR THE RECORDATION OF HISTORIC ARCHITECTURAL RESOURCES

A. NJ TRANSIT shall document the existing historic view sheds and historic resources within the APE that will be adversely effected (listed below), and that have not already been documented, in a manner consistent with Historic American Buildings Survey (HABS) and Historic American Engineering Record (HAER) Level III standards, and digital photography, to be performed by persons meeting the professional qualifications specified in Part V of this PA.

Lower Hack Draw Bridge; Old and New Bergen Tunnels (Western Portal); West End through Truss Bridges; West End Interlocking Tower; Delaware, Lackawanna and Western Railroad Boonton Line Historic District (Eastern Segment), portion within the APE for the undertaking.

- B. NJ TRANSIT shall key representative samples of resources along the Old Main Delaware, Lackawanna and Western Railroad Historic District to maps, including but not be limited to the following resources: stations, bridges, signal houses, historic catenaries (recordation of each type), tunnels, viaducts, culverts, rail yards, engine houses, shop buildings, turntables, substations, and interlocking towers.
- C. NJ TRANSIT and FTA shall write a scope of work for the content of this recordation effort and will consult with NJ SHPO. NJ TRANSIT shall include in the final document a discussion of the history and development of the Old Main Delaware, Lackawanna and Western Railroad and the broader history of rail transportation in Northern New Jersey.
- D. As part of the recordation effort and in consultation with NJ SHPO, NJ TRANSIT shall actively seek out and obtain from the public and from other accessible archival sources, printed, graphic, and photographic information regarding the resources listed above in Section II.A. The compiled information will be evaluated and (as deemed appropriate during consultation) duplicated as part of the recordation documents.
- E. NJ TRANSIT will prepare a copy of the recordation documents, and will submit such documentation to NJ SHPO for review and comment. NJ TRANSIT shall complete the digital photographic recordation, and NJ SHPO shall review and approve of the same, within six (6) months of the letting the main construction contract and prior to the initiation of any

demolition or construction activity. NJ TRANSIT and NJ SHPO will complete all other elements of the recordation within twelve (12) months of letting the construction contract.

A. NJ TRANSIT will provide archival copies of the final recordation documents to NJ SHPO, the New Jersey State Library, the Rutgers University Special Collections and University Archives, the Kearny Public Library, the Jersey City Public Library, and the Hoboken Public Library. Additional non-archival copies will be furnished to the Steamtown National Historic Site and the Erie-Lackawanna Historical Society. NJ TRANSIT will source and provide electronic versions of the final recordation documents to appropriate online depositories, to be determined with NJ SHPO.

III. PROTOCOLS FOR A HISTORIC INTERPRETIVE EXHIBIT

NJ TRANSIT shall design and install a multi-component historic interpretive display at one of its facilities in the vicinity of the proposed undertaking. The as-of-yet unidentified location will be selected through consultation between NJ TRANSIT and NJ SHPO and generally will provide the widest possible audience of railroad service consumers. The display will be a designated historic interpretive installation that shall consist of three (3) or four (4) panels or cast plaques either set into the pavement within appropriate landscape surrounds, attached to an existing building or structure, or mounted on one (1) or more kiosks or similar structures. The panels or plaques shall include text blocks, historic maps, and illustrations.

The interpretive exhibit will comprehensively address the history of rail transportation within the New Jersey Meadowlands. This topic will include discussion of the following:

- The challenges of acquiring rights-of-way and constructing embankments, tracks and bridges, the historic significance of the railway approaches to the New York City and the Greater Port of New York/New Jersey;
- The efforts and contributions of the various railroads involved with track construction and railroad operation (including the New Jersey Railroad and Transportation Company, the Central Railroad of New Jersey, the Pennsylvania Railroad, the Morris & Essex Railroad, the Hudson and Manhattan Railroad, the Delaware, Lackawanna and Western Railroad, the Erie-Lackawanna Railroad, the Penn-Central Railroad, the New York, Susquehanna and Western Railroad, the Consolidated Railroad Corporation, PATH and NJ TRANSIT);
- The history of maintenance and operations facilities (particularly the Pennsylvania Railroad's Meadows Yard) located in the Meadowlands which formerly and currently supported rail service;
- The history of the construction and operation of railroad bridges on the lower Passaic and Hackensack rivers. The interpretive materials shall identify, map, and briefly discuss the no-longer-extant Newark Turnpike Bridge, the Lower Hack Bridge, the Pennsylvania Railroad Harsimus Branch Freight Bridge, the Pennsylvania Railroad (PATH) Bridge, the Portal bridge, the Dock bridge, the Newark Drawbridge, the NX Bridge, and the Point-No-Point Bridge; and
- The interpretive sign will also incorporate the findings of the comprehensive historic context document completed as part of Stipulation I and Recordation of Historic Architectural Resources completed as part of Stipulation II of this PA and discuss the various types of railroad-related resources identified.

This historic information will be developed and conveyed in a tiered manner which will allow the data to be consumed and enjoyed by patrons of differing levels of interest and educational levels.

NJ TRANSIT will provide a copy of the design and proposed content for the panels or plaques of the interpretive exhibit to NJ SHPO for review and comment. The design and content of the panels or plaques will be completed within twelve (12) months of the letting the main construction contract.

The interpretive exhibit shall remain in place and be maintained in good order by NJ TRANSIT for a period of at least ten (10) years. NJ TRANSIT shall replace or repair any damaged or faded exhibit panels or plaques during that period. If due to changing plans or railroad improvements, it should become necessary to relocate the display to a new location, NJ TRANSIT shall consult with NJ SHPO to identify an appropriate new site and shall reinstall the display within three (3) months of its removal from its original location. After the ten (10) year period, the exhibit can remain in place or NJ TRANSIT may relocate the exhibit to a museum, institution, or organization who would display it, to be determined in consultation with NJ SHPO. If no location can be found, NJ TRANSIT shall store the exhibit at the Hoboken Terminal in Hudson County, New Jersey.

IV. PROTOCOLS FOR ARCHAEOLOGICAL MONITORING

NJ TRANSIT shall develop a plan for archaeological monitoring and documentation during construction and submit it to FTA and NJ SHPO for review and approval prior to the commencement of construction. Archaeological monitoring is necessary for the installation of utilities and duct banks within areas of archaeological sensitivity as defined in the report entitled, *Supplemental Information for the Phase LA Archaeological Survey (Phase LA)*, NJ TRANSITGRID Traction Power System, City of Bayonne, Town of Kearny, City of Jersey City, City of Hoboken, Township of Weehawken, City of Union City, and Township of North Bergen, Hudson County, New Jersey (RGA, Inc. 2017d) and within the limits of the National Register-eligible New Jersey Junction Railroad-to-Newark-Avenue Iron Viaduct (Substructure Only) (see Attachment 5). NJ TRANSIT shall include in the archaeological monitoring and documentation plan:

- A provision that all work related to the archaeological monitoring and documentation of the proposed Project sites with sensitivity for potential archaeological resources is performed by an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for archaeology (formerly codified as 36 CFR § 61);
- A protocol (i.e. archaeological monitoring work plan) outlining the responsibilities of FTA, NJ TRANSIT and NJ SHPO with respect to the archaeological monitoring and documentation to be performed during construction; and
- 3) A provision that the archaeological monitoring report and documentation will conform to the Guidelines for Preparing Cultural Resources Management Archaeological Reports Submitted to the Historic Preservation Office (2000) and the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation. NJ TRANSIT shall submit the draft archaeological monitoring report to NJ SHPO within six (6) months from the completion of archaeological monitoring.

In addition, FTA and NJ TRANSIT, in consultation with the archaeological consultant for the Project, shall amend the Project plans and specifications to include provisions for the archaeological

monitoring and documentation during construction. NJ TRANSIT shall submit that portion of the Project plans and specifications to NJ SHPO for review and approval. This section shall include:

- 1) the name, address, phone number, and e-mail address of the archaeological consultant;
- 2) the individual who will contact the archaeological consultant;
- 3) how far in advance of construction the notification will occur; and
- 4) delineation of which sections of the Project will be subject to archaeological documentation.

NJ TRANSIT shall reference the plan for archaeological monitoring and documentation in the Project documents and either include it or append it to them. NJ TRANSIT shall ensure that the approved archaeological monitoring plan is implemented.

V. PROFESSIONAL QUALIFICATIONS AND STANDARDS

FTA through NJ TRANSIT will ensure that all work prescribed by this PA is carried out by/under the direct supervision of a person or persons meeting at a minimum the appropriate Secretary of the Interior's Professional Qualifications Standards and Guidelines set forth in 48 FR § 44738-44739.

All work will conform to the Secretary of the Interior's Standards and Guidelines for archaeology and historic preservation.

VI. DESIGN REVIEW

NJ TRANSIT, in consultation with NJ SHPO and FTA, shall ensure that the design drawings and technical specifications for the proposed Project adhere to *The Secretary of the Interior's Standards for the Treatment of Historic Properties* and are compatible with the character defining features of historic resources within the Project APE. NJ TRANSIT shall submit design plans and specifications (as appropriate) at the 30 percent, 60 percent and 90 percent phases for NJ SHPO review and approval. NJ TRANSIT shall submit final (100 percent) design drawings and technical specification to NJ SHPO for review and approval prior to the initiation of the bidding process. NJ SHPO shall have thirty (30) calendar days to comment on each of these submissions.

NJ TRANSIT shall submit copies of shop drawings, as appropriate, based upon consultation with NJ SHPO, prepared in response to the approved plans and specifications for NJ SHPO review and Comment. NJ TRANSIT shall submit samples of new materials, finishes and elements, as appropriate, based upon consultation with NJ SHPO, to NJ SHPO for review and approval before or during construction. Samples may take the form of physical objects or printed visual representations, whichever form is more appropriate to the material, finish or element as determined in consultation with NJ SHPO.

VII. CHANGES IN PROJECT DESIGN

Should any plan, scope of service, or other document that has been reviewed and commented on pursuant to this PA be altered (except to finalize documents commented on in draft form), the parties

to this PA shall be afforded the opportunity to review the proposed change and determine whether or not it will require that this PA be amended. FTA, through NJ TRANSIT, will furnish to NJ SHPO a plan sheet or design sketch showing the proposed change; a written description of why the change is needed, effects to historic properties, if any; and a description of alternatives considered to achieve the same goals, if needed. NJ SHPO will provide written comments to FTA through NJ TRANSIT within thirty (30) calendar days of receipt of the documents in accordance with Stipulation XII below. If one or more of the signatories determines that an amendment to this PA is needed, then the parties to this PA will consult in accordance with Stipulation XV below.

VIII. CHANGES IN PROJECT AREA/SCOPE

In the event that NJ TRANSIT modifies the geographic boundaries of the proposed Project area, the scope of the proposed Project, or makes significant changes to the Project design affecting areas of excavation after joint approval of the 100 percent design described in Stipulation XII of this PA; the following measures will be implemented in consultation with the signatories:

- A. NJ TRANSIT, in consultation with FTA, NJ SHPO, and any consulting parties that wish to participate, will assess and revise the Project APE, as needed, to incorporate any additional areas that have the potential to affect historic resources.
- B. NJ TRANSIT, in consultation with FTA, NJ SHPO, and any consulting parties that wish to participate, will carry out additional investigations deemed necessary to identify historic architectural and archaeological properties that may be affected.
- C. NJ TRANSIT, in consultation with FTA, NJ SHPO, and any consulting parties that wish to participate, will assess the Project's potential effects on any new historic properties and explore measures to avoid, minimize, or mitigate adverse effects on these properties.
- D. NJ TRANSIT, in consultation with FTA and NJ SHPO, will ensure the preparation of appropriate reports and documents, notify Section 106 consulting parties, including Native American tribes, of any changes in the Project's effect on historic properties, and provide an opportunity for review and comment.
- E. If a change in Project scope results in potential effects to historic places not addressed in this PA, FTA will consult with all consulting parties to amend this PA in accordance with Section XV below.

IX. DISCOVERY OF HUMAN SKELETAL REMAINS

If human skeletal remains are encountered anywhere on the Project site, they will be treated in accordance with local law enforcement and the current guidelines of NJ SHPO, and with the applicable provisions of the New Jersey Cemetery Act of 2003, set forth at N.J.S.A. § 45:27-1 et seq. If it is determined that the skeletal remains (and any associated grave artifacts) are Native American, NJ TRANSIT will cease construction in the area of the discovery, and as soon as possible, consult with NJ SHPO and FTA over applicability and implementation of relevant procedures under the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990, set forth at 25 U.S.C. § 3001 et seq. and implementing regulations at 43 CFR Part 10. FTA will notify Tribal representatives,

and construction will not resume until such time as the significance, treatment, and disposition of said discoveries can be determined through consultation.

X. UNANTICIPATED DISCOVERIES OF ARCHEOLOGICAL RESOURCES

All unanticipated historic and/or prehistoric archaeological discoveries resulting from Project activities made anywhere on the Project site will be treated in accordance with the regulations set forth at 36 CFR § 800.11 and CFR § 800.13. In the event that unanticipated discoveries of Native American archaeological resources are made during execution of the Project, NJ TRANSIT will cease construction in the area of the discovery and FTA will notify all Tribal representatives. Construction will not resume until such time as the significance, treatment, and disposition of said discoveries can be determined in consultation with consulting parties.

XI. MONITORING AND OVERSIGHT

Each year following the execution of this PA until it expires or is terminated (see Section XIV and XVI), NJ TRANSIT shall provide all signatories to this PA a summary report detailing work undertaken pursuant to its terms. Such report will include any scheduling changes proposed, any problems encountered, a summary of minor Project changes, and any disputes and objections received in FTA's efforts to carry out the terms of this PA.

XII. DOCUMENT/DESIGN REVIEW AND REPORTING

NJ SHPO will provide comments on documents they review as set forth below:

- A. Unless otherwise stipulated in this PA, NJ SHPO will have thirty (30) calendar days to review and comment on all submissions stipulated in this PA, starting from the date of receipt of such documents.
- B. If NJ SHPO does not submit comments in writing to NJ TRANSIT and FTA within thirty (30) calendar days of receipt of any plans or reports, it is understood that NJ SHPO has concurred with the submission.

Plans/drawings/specifications to be submitted to NJ SHPO are as follows:

- a. 30 percent Design
- b. 60 percent Design
- c. 90 percent Design
- d. 100 percent (final) Design
- C. If NJ SHPO objects to or recommends revisions to submissions stipulated in this PA, NJ TRANSIT, FTA, and NJ SHPO will consult expeditiously to respond to recommendations and resolve objections.
- D. If FTA and NJ TRANSIT cannot resolve NJ SHPO objections, and if further consultation with NJ SHPO is deemed unproductive by any party, the parties will adhere to the dispute resolution procedures detailed under Section XIII below.

E. FTA, NJ TRANSIT, and NJ SHPO acknowledge that the timeframes set forth in Section XII.A. above will be the maximum allowable under normal circumstances. In exigent circumstances (such as when construction activities potentially affecting historic and/or architectural resources that are the subject of NJ SHPO or other stakeholder objections or disputes have been delayed pending resolution of said objections or disputes), each party agrees to expedite its respective document review and dispute resolution obligations.

XIII. DISPUTE RESOLUTION

- A. In the event any signatory to this PA objects at any time to any actions proposed or the manner in which the terms of this PA are implemented, FTA and NJ TRANSIT will consult with such party to resolve the objection. If FTA determines that such objection cannot be resolved, FTA and NJ TRANSIT will meet with the objecting party within thirty (30) calendar days to resolve the objection.
- B. If after consultation with the objecting party FTA determines that the objection has not been satisfactorily resolved, FTA will, within fifteen (15) days of determination, forward documentation relevant to the dispute to the ACHP.
- C. Except in exigent circumstances as provided in Section XII.E above, when a dispute occurs, ACHP will provide FTA with recommendations or comments within thirty (30) calendar days after receipt of pertinent documentation. FTA will take such recommendations or comments into account in reaching a final decision regarding the dispute.
- D. Except in exigent circumstances as provided in Section XII.E above, in the event that ACHP fails to respond to FTA's requests for recommendations or comment within thirty (30) calendar days of receiving pertinent documents, FTA may resolve the dispute. Prior to reaching a final decision, FTA will prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the PA and provide them and the ACHP with a copy of such written response.
- E. In the case of disputes arising under exigent circumstances (such as when construction activities have been suspended or delayed pending resolution of the matter), relevant parties will endeavor to resolve any dispute within seven (7) calendar days. In particular, ACHP shall respond to FTA's request for recommendations or comments within five (5) business days of its receipt thereof.

XIV. DURATION

This PA will expire if its terms are not carried out within ten (10) years from the date of its execution by the last signatory to execute the PA, or upon Project completion or grant closeout, whichever comes first. If within 10 years, the proposed Project is not completed, or its stipulations are not met, the signatories will consult to determine if this PA will be amended, extended, or terminated. Prior to such time, FTA through NJ TRANSIT may consult with the other signatories to reconsider the terms of the PA and amend it in accordance with Stipulation XV below.

XV. AMENDMENTS

Any signatory to this PA may request at any time that it be amended whereupon the signatories will consult in accordance with 36 CFR § 800.14(b) to consider such amendment. Any resulting amendments shall be developed and executed among the signatories in the same manner as the original PA. Any amendment of this PA will go into effect only upon written agreement by all signatories.

XVI. TERMINATION

If this PA is not amended as provided for in Section XV, or if any of the signatories or invited signatories propose termination of this PA for other reasons, the signatory or invited signatory party proposing termination shall, in writing, notify the other signatories to seek alternatives to termination. If within thirty (30) days, or another time period agreed to by all signatories, an amendment cannot be reached, any signatory may terminate the PA upon written notification to the other signatories.

Once this PA is terminated, and prior to work continuing on the undertaking, FTA must either (a) execute a PA pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. FTA will notify the signatories as to the course of action it will pursue.

Execution of this PA by FTA, NJ TRANSIT, and NJ SHPO, and implementation of its terms, demonstrate that FTA has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

XVII. CONTACT INFORMATION

For purposes of notices and consulting pursuant to this PA, the following addresses and contact information should be used for the respective agencies:

NJ TRANSIT	FTA	NJ SHPO
Dara Callender Manager, Env. Compliance Environment, Energy and Sustainability Unit NJ TRANSIT One Penn Plaza East Newark, NJ 07105-2246 Tel: 973-491-7205 Fax: 973-863-4538	Donald Burns Director of the Office of Planning and Program Development Federal Transit Administration Region 2 1 Bowling Green, Room 429 New York, NY 10004-1415 Tel: 212-668-2170 Fax: 212-668-2136	Katherine Marcopul Deputy SHPO NJ Historic Preservation Office P.O. Box 420 Trenton, NJ 08625-0420 Tel: 609-984-5816 Fax: 609-984-0578

References

RGA, Inc.

- 2017a Historic Architectural Background Survey (HARBS) and Effects Assessment (EA) Report, NJ TRANSITGRID Traction Power System, City of Bayonne, Town of Kearny, City of Jersey City, City of Hoboken, Township of Weehawken, City of Union City, and Township of North Bergen, Hudson County, New Jersey, Volumes I and II. June 2017. On file at the New Jersey State Historic Preservation Office, Trenton, New Jersey.
- 2017b Phase IA Archaeological Survey, NJ TRANSITGRID Traction Power System, City of Bayonne, Town of Kearny, City of Jersey City, City of Hoboken, Township of Weehawken, City of Union City, and Township of North Bergen, Hudson County, New Jersey. June 2017. On file at the New Jersey State Historic Preservation Office, Trenton, New Jersey.
- 2017c Supplemental Information for the Historic Architectural Background Survey (HARBS) and Effects Assessment (EA) report, NJ TRANSITGRID Traction Power System, City of Bayonne, Town of Kearny, City of Jersey City, City of Hoboken, Township of Weehawken, City of Union City, and Township of North Bergen, Hudson County, New Jersey, Volumes I and II. December 2017. On file at the New Jersey State Historic Preservation Office, Trenton, New Jersey.
- 2017d Supplemental Information for the Phase LA Archaeological Survey (Phase IA), NJ TRANSITGRID Traction Power System, City of Bayonne, Town of Kearny, City of Jersey City, City of Hoboken, Township of Weehawken, City of Union City, and Township of North Bergen, Hudson County, New Jersey. December 2017. On file at the New Jersey State Historic Preservation Office, Trenton, New Jersey.

ATTACHMENTS

Attachment 1: Area of Potential Effect (APE)

- Attachment 2: New Jersey State Historic Preservation Office letter to NJ TRANSIT dated April 24, 2018 RE: HPO Project #14-1685,14, -15, -16; HPO Log #D2018-122 PROD
- Attachment 3: Advisory Council on Historic Preservation (ACHP) letter to Federal Transit Administration (FTA), dated May 16, 2019
- Attachment 4: Old Main Delaware, Lackawanna and Western Railroad Historic District from Hoboken Terminal to the Delaware River in Warren County, NJ

Attachment 5: Areas of Archaeological Sensitivity

Attachment 6: References from Historic Architectural Resources Background Study and Effects Assessment (HARBS/EA) and Bibliography from Supplemental Information for the Phase 1A Archaeological Survey (Phase 1A) for the NJ TRANSITGRID TRACTION POWER SYSTEM

APPROVAL AND SIGNATURE PAGE FOR PROGRAMMATIC AGREEMENT

Among

Federal Transit Administration (FTA) New Jersey Transit Corporation (NJ TRANSIT) New Jersey State Historic Preservation Office (NJ SHPO)

> Regarding the NJ TRANSITGRID Traction Power System Hudson County, New Jersey

FEDERAL TRANSIT ADMINISTRATION

By:

Date: 1/16/28

Stephen Goodman Regional Administrator, Region II

APPROVAL AND SIGNATURE PAGE FOR PROGRAMMATIC AGREEMENT

Among

Federal Transit Administration (FTA) New Jersey Transit Corporation (NJ TRANSIT) New Jersey State Historic Preservation Office (NJ SHPO)

> Regarding the NJ TRANSITGRID Traction Power System Hudson County, New Jersey

NEW JERSEY STATE HISTORIC PRESERVATION OFFICE

haverpul attenne By:

____ Date: 12/20/2019

Katherine J. Marcopul Deputy State Historic Preservation Officer

APPROVAL AND SIGNATURE PAGE FOR PROGRAMMATIC AGREEMENT

Among

Federal Transit Administration (FTA) New Jersey Transit Corporation (NJ TRANSIT) New Jersey State Historic Preservation Office (NJ SHPO)

> Regarding the NJ TRANSITGRID Traction Power System Hudson County, New Jersey

NEW JERSEY TRANSIT CORPORATION

By:

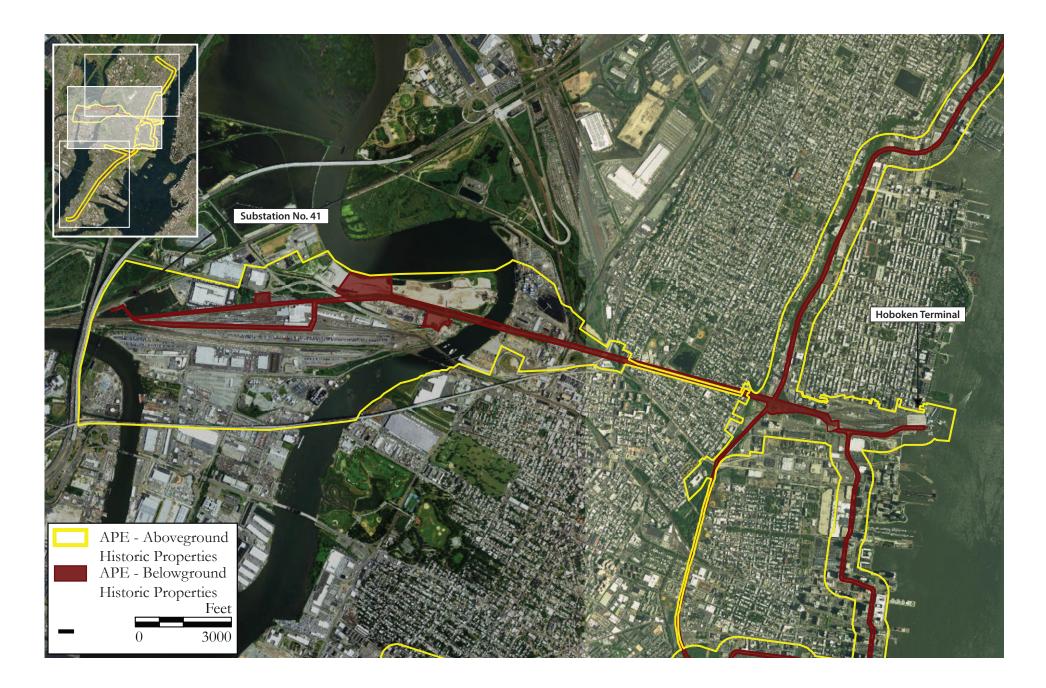
Date: JAN 2, 2020

Eric Daleo Assistant Executive Director Attachment 1

Area of Potential Effect (APE)



Attachment 1.A: Aerial photograph depicting the APE-Aboveground and the APE-Belowground for Historic Properties (NJGIS Digital Orthographic Imagery, 2012).



Attachment 1.B: Aerial photograph depicting the APE-Aboveground and the APE-Belowground for Historic Properties (NJGIS Digital Orthographic Imagery, 2012).



Attachment 1.C: Aerial photograph depicting the APE-Aboveground and the APE-Belowground for Historic Properties (NJGIS Digital Orthographic Imagery, 2012).

Attachment 2

New Jersey State Historic Preservation Office letter to NJ TRANSIT dated April 24, 2018 RE: HPO Project #14-1685-14,-15,-16; HPO Log #D2018-122 PROD)



HPO Project# 14-1685-14,-15,-16 HPO-D2018-122 PROD

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION NATURAL & HISTORIC RESOURCES HISTORIC PRESERVATION OFFICE MAIL CODE 501-04B P.O. BOX 420 TRENTON, NJ 08625-0420 TEL: # 609-984-0176 FAX: # 609-984-0578

CATHERINE R. McCABE Acting Commissioner

April 24, 2018

Dara Callender Manager, Environmental Compliance NJ TRANSIT One Penn Plaza East Newark, NJ 07105

Dear Ms. Callender:

As Deputy State Historic Preservation Officer for New Jersey, in accordance with 36 CFR Part 800: Protection of Historic Properties, as published with amendments in the Federal Register on 6 July 2004 (69 FR 40544-40555), I am providing **Consultation Comments** for the following proposed undertaking:

Hudson County, Town of Kearny, Jersey City, Hoboken, Union City Bayonne, Weehawken, and North Bergen NJ TRANSIT TransitGrid Federal Transit Administration (FTA)

Summary (NEW SHPO OPINIONS):

Based on the survey provided, the following properties have been given a new or revised opinion of eligibility for inclusion in the New Jersey (NJR) and National (NR) Registers of Historic Places:

- Ruth Court / Maryland Court / Plaza Court, 3139-3149 John F. Kennedy Boulevard, City of Jersey City, is eligible for inclusion in the NJR and NR under Criterion C as it embodies "distinctive characteristics of a type, period, or method of construction."
- Belvedere Court, 364-270 Palisade Avenue, City of Jersey City, is eligible for inclusion in the NJR and NR under Criteria A and C as a well-preserved example of an early luxury apartment building designed by the prominent local architectural firm of William Neumann.
- Substation 41, Amtrak Northeast Corridor, Town of Kearny, is a contributing feature of the Pennsylvania Railroad (PRR) New York to Philadelphia Historic District.
- L.O. Koven & Bro. Inc. Sheet Iron and Plate Steel Works, 100 Paterson Plank Road, City of Jersey City, is no longer eligible for inclusion in the NJR and NR due to extensive alterations.
- The following resources have been demolished and are therefore no longer eligible for inclusion in the NJR and NR:
 - o Covert/Larch Historic District, City of Jersey City
 - o Central Railroad of New Jersey Passenger Depot, City of Bayonne
 - Gates Avenue Bridge, City of Bayonne
 - o Roundhouse, Central Railroad of New Jersey, City of Jersey City

The State of New Jersey is an equal-opportunity employer. Printed on recycled and recyclable paper.

PHILIP D. MURPHY Governor

SHEILA Y. OLIVER Lt. Governor

HPO Project# 14-1685-14,-15,-16 HPO-D2018-122 PROD Page 2 of 13

- o Central Railroad Bridge, City of Jersey City
- Conrail Bridge, City of Jersey City
- o Schiavone-Bonomo Corporation, City of Jersey City
- Engine Company Number 8 Firehouse, City of Jersey City
- Firehouse Number 12, City of Jersey City
- Rogers-Pyatt Shellac Company/S.A. Wald Marine Cargo Salvors Warehouse, City of Jersey City
- o PATH Exchange Place Station Entrance, City of Jersey City
- Erie Terminal Station of the Hudson and Manhattan Railroad Company ("Erie Station/Path Pavonia Station"), City of Jersey City
- o 14th Street Viaduct, multiple municipalities
- Doric Temple, City of Union City

The consultation comments below are in reply to the following cultural resources reports received at the New Jersey Historic Preservation Office (HPO):

Davis, Allee and Lynn Alpert

June 16, 2017

Historic Architectural Resources Background Survey (HARBS) and Effects Assessment (EA) Report, NJ TransitGrid Traction Power System, City of Bayonne, Town of Kearny, City of Jersey City, City of Hoboken, Township of Weehawken, City of Union City, and Township of North Bergen, Hudson County, New Jersey, Volumes I and II. Prepared for BEM Systems, Inc., Chatham, NJ. Prepared by Richard Grubb and Associates, Cranbury, New Jersey.

DeWhite, Sharon and Teresa Bulger

June 16, 2017

Phase IA Archaeological Survey, NJ TransitGrid Traction Power System, City of Bayonne, Town of Kearny, City of Jersey City, City of Hoboken, Township of Weehawken, City of Union City, and Township of North Bergen, Hudson County, New Jersey. Prepared for BEM Systems, Inc., Chatham, NJ. Prepared by Richard Grubb and Associates, Cranbury, New Jersey.

Alpert, Lynn June 16, 2017

Letter report from, Lynn Alpert, Architectural Historian, Richard Grubb and Associates, to Dr. Katherine Marcopul, Deputy State Historic Preservation Officer, New Jersey Historic Preservation Office, concerning "Historic Context and Integrity Analysis, Pennsylvania Railroad Substations in New Jersey."

Bulger, Teresa D. and Sharon D. White December 2017 Supplemental Inj

Supplemental Information for the Phase IA Archaeological Survey (Phase IA), NJ TransitGrid Traction Power System, City of Bayonne, Town of Kearny, City of Jersey City, City of Hoboken, Township of Weehawken, City of Union City, and Township of North Bergen, Hudson County, New Jersey.

HPO Project# 14-1685-14,-15,-16 HPO-D2018-122 PROD Page 3 of 13

Davis, Allee and Lynn Alpert

December 20, 2017

Supplemental Information for the Historic Architectural Resources Background Survey (HARBS) and Effects Assessment (EA) Report, NJ TransitGrid Traction Power System, City of Bayonne, Town of Kearny, City of Jersey City, City of Hoboken, Township of Weehawken, City of Union City, and Township of North Bergen, Hudson County, New Jersey, Volumes I and II. Prepared for BEM Systems, Inc., Chatham, NJ. Prepared by Richard Grubb and Associates, Cranbury, New Jersey.

800.4 Identification of Historic Properties

Historic Architecture

The submitted architectural survey examined 93 historic resources that were previously identified as listed in the NJR and/or NR, received a formal Determination of Eligibility (DOE) from the Keeper of the National Register, certified as National Register-eligible (COE) by the SHPO, or evaluated as National Register-eligible (SHPO Opinion) by the SHPO. Of these previously identified resources, the current survey determined that 14 of them have been demolished and 1 has suffered from a loss of integrity due to inappropriate alterations. In addition, 63 resources more than 50 years of age were evaluated for their potential significance. As a result of the intensive level survey, the following historic resources were identified within the Area of Potential Effects (APE) for Project Components A-G:

Listed in the NJR and/or NR:

- US Route 1 Extension [Pulaski Skyway] Historic District, multiple municipalities (NJR 6/13/2005; NR 8/12/2005)
- Jersey City High School [William Dickinson High School], City of Jersey City (NJR 12/23/1981; NR 6/1/1982)
- Engine Company #3, Truck #2 Firehouse, City of Jersey City (NJR 2/9/1984; NR 3/30/1984)
- Erie-Lackawanna Terminal, City of Hoboken (NJR 12/7/2004; NR 2/17/2005)
- Bayonne Trust Company, City of Bayonne (SHPO Opinion 12/9/1994; COE: 1/30/2002; NJR 4/20/2006; NR 8/8/2006)
- Morris Canal, multiple municipalities (SHPO Opinion: 5/27/2004; NJR 11/26/1973; NR 10/1/1974)
- Paulus Hook Historic District, City of Jersey City (NJR 8/7/1981; NR 6/21/1982)
- Van Vorst Park Historic District, City of Jersey City (NJR 8/21/1984; NR 10/11/1984)
- Hudson and Manhattan Railroad Powerhouse, City of Jersey City (COE 10/7/1999; NR 11/23/2001)
- Great Atlantic and Pacific Tea Company Warehouse, City of Jersey City (NJR 6/2/1978; NR 6/2/1978; NHL 6/2/1978)
- Butler Brothers Warehouse, City of Jersey City (SHPO Opinion 9/5/2013; NJR 10/26/2015)
- Holland Tunnel, City of Jersey City (NJR 10/13/1995; NHL 11/3/1993; NR 11/4/1993)
- Pohlmann's Hall, City of Jersey City, (NJR 7/5/1985; NR 9/5/1985)

Previously evaluated as eligible for inclusion in the NJR and/or NR:

• Old Main Delaware, Lackawanna and Western (DL&W) Railroad Historic District, multiple municipalities (SHPO Opinion 9/24/1996)

- PRR New York to Philadelphia Historic District, multiple municipalities (SHPO Opinion 10/2/2002)
- PRR New York Bay Branch Historic District, City of Newark (SHPO Opinion 4/22/2005)
- Essex Generating Station, Town of Kearny and City of Newark (SHPO Opinion 3/23/2015)
- Public Service Electric and Gas Company (PSE&G), Kearny-Essex-Marion Interconnection Historic District, Town of Kearny and City of Jersey City (SHPO Opinion 12/31/2013)
- Jersey City Water Works Historic District, multiple municipalities (SHPO Opinion 1/20/2003)
- Hackensack River Lift Bridges Historic District, Town of Kearny and City of Jersey City (SHPO Opinion 5/3/2002)
- People's Gas Light Company/PSE&G Marion Office Historic District, City of Jersey City (SHPO Opinion 3/10/1999)
- DL&W Railroad Boonton Line Historic District, multiple municipalities (SHPO Opinion 9/18/2008)
- US Routes 1 & 9 Historic District, multiple municipalities (SHPO Opinion 3/8/1996)
- New Jersey Midland Railway/New York, Susquehanna and Western Railroad Historic District, multiple municipalities (SHPO Opinion 4/25/2006 and 1/30/2015)
- Erie Railroad Main Line Historic District, multiple municipalities (SHPO Opinion 2/20/2003)
- Erie Railroad Bergen Archways Historic District, City of Jersey City (SHPO Opinion 4/27/2000)
- Hudson and Manhattan Railroad Transit System (PATH) Historic District, multiple municipalities (SHPO Opinion 3/4/2002)
- Hoboken Historic District, City of Hoboken (SHPO Opinion 12/12/2016)
- Substation 4, Town of Kearny (SHPO Opinion 9/12/1994)
- Edison Battery Company Property, Town of Kearny (SHPO Opinion 4/8/2008)
- Jersey City Water Works Pipeline, City of Jersey City (SHPO Opinion 5/7/1999)
- PSE&G Kearny Generating Station, Town of Kearny (SHPO Opinion 5/3/2002)
- Lower Hack Draw Bridge, Town of Kearny and City of Jersey City (SHPO Opinion 9/18/1996)
- Wittpenn Bridge [SI&A #0909150], Town of Kearny and City of Jersey City (SHPO Opinion 2/7/2001)
- PRR Harsimus Branch (Conrail/CSX) Bridge over the Hackensack River, Town of Kearny and City of Jersey City (SHPO Opinion 5/3/2002)
- PRR (PATH) Bridge over Hackensack River, Town of Kearny and City of Jersey City (SHPO Opinion 5/3/2002)
- St. Peter's Cemetery, City of Jersey City (SHPO Opinion 6/18/1996)
- West End Interlocking Tower, City of Jersey City (SHPO Opinion 1/20/1999)
- West-End Through Truss Bridges, City of Jersey City (SHPO Opinion 3/31/1997)
- Old and New Bergen Tunnels, City of Jersey City (SHPO Opinion 5/8/1998)
- JFK Boulevard Bridge [SI&A # 0951170], City of Jersey City (SHPO Opinion 4/27/2000)
- Erie Railroad Bergen Hill Tunnel [aka Long Dock Tunnel], City of Jersey City (SHPO Opinion 4/27/2000)
- Palisade Avenue Bridge [SI&A # 0951165], City of Jersey City (SHPO Opinion 4/27/2000)

HPO Project# 14-1685-14,-15,-16 HPO-D2018-122 PROD Page 5 of 13

- Holbrook Manufacturing Company, City of Jersey City (SHPO Opinion 2/28/1991)
- Continental Can Company Complex, City of Jersey City (SHPO Opinion 5/30/1997)
- Lackawanna Warehouse and Viaduct, City of Jersey City (SHPO Opinion 5/16/1995)
- Grove Street Bridge, City of Jersey City (SHPO Opinion 1/20/1999)
- Mechanic's Trust Company, City of Bayonne (SHPO Opinion 12/9/1994)
- East 17th Street Apartment Buildings Streetscape, City of Bayonne (SHPO Opinion 12/9/1994)
- Maidenform Brassiere Company, City of Bayonne (SHPO Opinion 12/9/1994)
- East 19th Street Streetscape, City of Bayonne (SHPO Opinion 12/9/1994)
- Mount Carmel Historic District, City of Bayonne (SHPO Opinion 2/28/1991)
- YMCA of Bayonne, City of Bayonne (SHPO Opinion 5/5/1997)
- Public School Number 5, City of Bayonne (SHPO Opinion 2/28/1991)
- Lehigh Valley Railroad Historic District, multiple municipalities (SHPO Opinion 3/15/2002)
- PRR New York Bay Branch Historic District, multiple municipalities (SHPO Opinion 9/10/2014)
- Hanover National Bank Repository, City of Jersey City (COE 5/18/2006)
- Communipaw-Lafayette Historic District, City of Jersey City (SHPO Opinion 2/17/1995)
- Ocean Avenue Bridge (SI&A #0950163), City of Jersey City (SHPO Opinion 5/16/1995)
- Bergen Avenue Bridge (SI&A #0900011), City of Jersey City (SHPO Opinion 5/16/1995)
- Former Candy Factory, City of Jersey City (SHPO Opinion 2/28/1991)
- One Exchange Place (Bank Building), City of Jersey City (SHPO Opinion 2/28/1991)
- Commercial Trust Company Bank, City of Jersey City (SHPO Opinion 5/16/1995)
- Warehouse Historic District, City of Jersey City (SHPO Opinion 2/28/1991)
- L.O. Koven & Brothers Sheet Iron and Plate Steel Works, City of Jersey City (SHPO Opinion 2/28/1991)
- 269-271 Ogden Avenue, City of Jersey City (SHPO Opinion 2/28/1991)
- 268-272 Ogden Avenue, City of Jersey City (SHPO Opinion 2/28/1991)
- Ferguson Brothers Manufacturing Company, City of Hoboken (SHPO Opinion 10/16/1998)
- Old Hillside Road Trolley Horseshoe Curve, multiple municipalities (SHPO Opinion 5/21/1999)
- North (Hudson) River Tunnels, multiple municipalities (SHPO Opinion 11/12/1998)
- NJ Route 3 (NJ 495) Highway Approach to Lincoln Tunnel Historic District, Weehawken Township (SHPO Opinion 11/17/1999)
- NJ Route 495 Viaduct (SI&A 3800031), Weehawken Township (SHPO Opinion 5/16/1995)
- Lincoln Tunnel Entrance and Ventilation Buildings, Weehawken Township (SHPO Opinion 2/28/1991)
- Lincoln Tunnel, Weehawken Township (SHPO Opinion 2/25/2003)
- King's Bluff Historic District, Weehawken Township (SHPO Opinion 5/16/1995)
- West Shore Railroad Tunnel, multiple municipalities (SHPO Opinion 2/28/1991)
- R. Neumann & Co. Factory Complex/300 Observer Highway, City of Hoboken (SHPO Opinion 12/9/2016)

Previously evaluated as eligible for inclusion in the NJR and/or NR, but no longer extant:

- Covert/Larch Historic District, City of Jersey City (SHPO Opinion 3/10/1999)
- Central Railroad of New Jersey Passenger Depot, City of Bayonne (SHPO Opinion 9/11/1975)
- Gates Avenue Bridge (SI&A# 82003274), City of Bayonne (SHPO Opinion 12/9/1994)

- Roundhouse for the Central Railroad of New Jersey, City of Jersey City (SHPO Opinion 10/1/1975)
- Central Railroad Bridge, City of Jersey City (SHPO Opinion 2/28/1991)
- Conrail Bridge, City of Jersey City (SHPO Opinion 5/16/1995)
- Schiavone-Bonomo Corporation, City of Jersey City (SHPO Opinion 5/16/1995)
- Engine Company Number 8 Firehouse, City of Jersey City (SHPO Opinion 6/12/1980)
- Firehouse Number 12, City of Jersey City (SHPO Opinion 5/16/1995)
- Rogers-Pyatt Shellac Company/S.A. Wald Marine Cargo Salvors Warehouse, City of Jersey City (SHPO Opinion 2/17/1995)
- PATH Exchange Place Station Entrance, City of Jersey City (SHPO Opinion 2/28/1991)
- Erie Terminal Station of the Hudson and Manhattan Railroad Company ("Erie Station/Path Pavonia Station"), City of Jersey City (SHPO Opinion 11/23/1983; DOE 6/26/1984)
- 14th Street Viaduct, multiple municipalities (SHPO Opinion 10/16/1998)
- Doric Temple, City of Union City (SHPO Opinion 10/18/1995)

It is my opinion as New Jersey Deputy State Historic Preservation Officer that the following resource, previously evaluated as eligible for inclusion in the NJR and NR, no longer meets the NJR/NR eligibility criteria, and is therefore not eligible for inclusion in the NJR/NR:

• L.O. Koven & Bro. Inc. Sheet Iron and Plate Steel Works (RGA-E1), 100 Paterson Plank Road, City of Jersey City. On February 28, 1991, the New Jersey SHPO evaluated this property as eligible for inclusion in the NJR/NR under Criterion C for its significance in the area of architecture as an excellent example of the industrial vernacular style and as part of an integrated and well-preserved group of industrial buildings. As indicated in the June 16, 2017 *Historic Architectural Resources Background Survey (HARBS) and Effects Assessment (EA) Report*, the property was extensively renovated in 2007, with some architecturally incompatible additions and a loss of historic fabric. Based on the extent and nature of the renovations, the property does not retain sufficient architectural integrity to meet NJR and NR Criterion C.

It is my opinion as New Jersey Deputy State Historic Preservation Officer that there is insufficient information at this time to issue an opinion of the eligibility for inclusion in the NJR/NR for the following resource that was identified in the June 16, 2017 *Historic Architectural Resources Background Survey (HARBS) and Effects Assessment (EA) Report* as eligible for inclusion in the NJR/NR:

• Bayonne Garden Apartments Historic District (RGA-52), 15-18 12th Street, City of Bayonne. The apartment complex is a simple, rather unadorned example of early twentieth garden apartment buildings. The architect, Andrew J. Thomas, does not appear to meet the test for "work of a master."

Based on the cultural resources report, it is my opinion as New Jersey Deputy State Historic Preservation Officer that the following resources are eligible for inclusion in the NJR/NR:

• Ruth Court / Maryland Court / Plaza Court (RGA-18), 3139-3149 John F. Kennedy Boulevard, City of Jersey City. Built ca. 1920, this Tudor Revival-style apartment building meets NR Criterion C as it embodies "distinctive characteristics of a type, period, or method of construction." Located in the "Heights" neighborhood of Jersey City, this four-story multibay apartment house was a prevalent early twentieth century building type in urban areas. In addition, the building's detailing reflects the prevalent Tudor Revival style.

- Belvedere Court (RGA-25); 364-270 Palisade Avenue, Jersey City. Built in 1914, this Spanish Colonial Revival apartment house is significant as a well-preserved example of an early luxury apartment building in the Heights section of Jersey City. Designed by the prominent local architectural firm of William Neumann, the apartment house reflects the transition to high-rise modern apartment buildings in burgeoning residential neighborhoods. It is eligible for inclusion in the NJR / NR under eligibility Criteria A and C.
- Substation 41, Amtrak Northeast Corridor, City of Kearny. Constructed in the 1930s as part of the PRR's electrification of its main line between New York and Philadelphia, this resource is a contributing feature to the NR-eligible PRR New York to Philadelphia Historic District. As part of the current project, the substation was evaluated for the extent to which the Northeast Corridor's 1930s substations retain five aspects of their historic fabric: setting, function, superstructure, control house, and original equipment. Substation 41 retains all or part of its setting, function, and superstructure (although with some new components) and has what appears to be four original transformers (two American Brown Bouveri Company service transformers and two General Electric type E-116 instrument potential transformers).

These are new SHPO Opinions of Eligibility.

Archaeology

Thank you for providing the HPO with the opportunity to review and comment on the potential for the above-referenced undertaking to affect historic properties.

The additional information contained within the December 2017 supplemental report includes appropriate archaeological recommendations within the APE organized by project component and additional information regarding the archaeological sensitivity of each project component. The proposed project consists of the installation of monopoles of varying heights with associated duck banks throughout the APE. The installation of monopoles and utilities/duck banks will be undertaken using different construction techniques. In the case of the monopoles, ground disturbance will involve the use of a truck-mounted drill where an auger is drilled into the ground, turning up soils from subsurface deposits. For the installation of the utilities and duck banks, ground disturbance would include the mechanical excavation of trenches to a maximum depth of five feet. The report recommends archaeological monitoring for the installation of the monopoles and utilities/duck banks in areas of archaeological sensitivity within the APE.

The HPO concurs with a portion of the above assessment. Recent projects of a similar nature reviewed by the HPO have found that archaeological monitoring of mechanically excavated monopoles is not effective in recovering useful archaeological data. Therefore, the HPO only recommends archaeological monitoring for the installation of utilities and duct banks within areas of archaeological sensitivity as identified in this report. In addition, the New Jersey Junction Railroad-to-Newark Avenue Iron Viaduct (Substructure Only) is located within Project Component F, Section 1 and is eligible for inclusion in the NJR and NR. If utility and/or duct banks are proposed within this eligible resource, archaeological monitoring will be required.

800.5 Assessing Adverse Effects

The assessment of the proposed project's potential effects is based on review of the following design documents:

• NJ Transitgrid Morris & Essex Line Distribution, 10% submittal plans, 8/24/17

HPO Project# 14-1685-14,-15,-16 HPO-D2018-122 PROD Page 8 of 13

- NJ Transitgrid Morris & Essex Transmission, 20% submittal plans, 2/27/18
- NJ TRANSIT Microgrid Distribution-HBLR South, 10% submittal plans, 8/24/17
- NJ TRANSIT Microgrid Distribution-HBLR North, 10% submittal plans, 8/24/17

The various project components (described in the survey report as A-G) were evaluated for their potential effects. Components A-E have the potential to affect the National Register-eligible Old Main DL&W Railroad Historic District as well as resources within the corridor's viewshed. Component F extends south to Caven Point, using either an existing NJ Turnpike right-of-way or the existing Hudson Bergen Light Rail (HBLR) line. Component G extends north along the HBLR. These two project components, especially Component G, come in close proximity to numerous historic resources, and have the potential to visually affect these resources. The potential effects are discussed below under the individual historic resources.

Based on a review of the preliminary project plans, the proposed project, including Components A-G, will not have an effect on the following resources listed in or eligible for inclusion in the NJR/NR:

- Jersey City Water Works Historic District, multiple municipalities (SHPO Opinion 1/20/2003)
- Erie Railroad Bergen Archways Historic District, City of Jersey City (SHPO Opinion 4/27/2000)
- Hudson and Manhattan Railroad Transit System (PATH) Historic District, multiple municipalities (SHPO Opinion 3/4/2002)
- Jersey City Water Works Pipeline, City of Jersey City (SHPO Opinion 5/7/1999)
- Wittpenn Bridge [SI&A #0909150], Town of Kearny and City of Jersey City (SHPO Opinion 2/7/2001)
- PRR Harsimus Branch (Conrail/CSX) Bridge over the Hackensack River, Town of Kearny and City of Jersey City (SHPO Opinion 5/3/2002)
- PRR (PATH) Bridge over Hackensack River, Town of Kearny and City of Jersey City (SHPO Opinion 5/3/2002)
- JFK Boulevard Bridge [SI&A # 0951170], City of Jersey City (SHPO Opinion 4/27/2000)
- Palisade Avenue Bridge [SI&A # 0951165], City of Jersey City (SHPO Opinion 4/27/2000)
- Morris Canal, multiple municipalities (SHPO Opinion: 5/27/2004; NJR 11/26/1973; NR 10/1/1974)
- Hudson and Manhattan Railroad Transit System (PATH) Historic District, multiple municipalities (SHPO Opinion 3/4/2002)
- Holland Tunnel, City of Jersey City (NJR 10/13/1995; NHL 11/3/1993; NR 11/4/1993)
- L.O. Koven & Brothers Sheet Iron and Plate Steel Works, City of Jersey City (SHPO Opinion 2/28/1991)
- North (Hudson) River Tunnels, multiple municipalities (SHPO Opinion 11/12/1998)
- Lincoln Tunnel, Weehawken Township (SHPO Opinion 5/16/1995)
- West Shore Railroad Tunnel, multiple municipalities (SHPO Opinion 2/28/1991)

The proposed project, including Components A-G, will have an effect, but not adverse, on the following resources listed in or eligible for inclusion in the NJR/NR:

• PRR New York to Philadelphia Historic District, multiple municipalities (SHPO Opinion 10/2/2002)

The proposed project is within close proximity to the PRR New York to Philadelphia Historic District; however, the proposed poles will not be placed on this historic district and will only have a minor visual effect.

- Substation 4, Town of Kearny (SHPO Opinion 9/12/1994). This substation, a contributing feature of the PRR New York to Philadelphia Historic District, is located in close proximity to the western end of the project and will be within direct viewshed of Amtrak's new Substation 41. However, the visual effect will not be adverse due to the industrial nature of both substations and the immediately surrounding area. In addition, there will be no direct physical effect on Substation 4.
- Substation 41, Town of Kearny. This substation, a contributing feature of the Old Main DL&W Railroad Historic District, will retain most of its historic elements, including use, setting, and superstructure (with some new superstructure added). Its original control house was lost in a fire; the existing structures to be removed are modern. Although there are two transformers that are believed to be original, the loss of these two pieces of equipment is considered acceptable.
- PRR New York Bay Branch Historic District, City of Newark (SHPO Opinion 4/22/2005)
- Essex Generating Station, Town of Kearny and City of Newark (SHPO Opinion 3/23/2015)
- Public Service Electric and Gas Company (PSE&G), Kearny-Essex-Marion Interconnection Historic District, Town of Kearny and City of Jersey City (SHPO Opinion 12/31/2013)
- People's Gas Light Company/PSE&G Marion Office Historic District, City of Jersey City (SHPO Opinion 3/10/1999)
- US Route 1 Extension [Pulaski Skyway] Historic District, multiple municipalities (NJR 6/13/2005; NR 8/12/2005)
- US Routes 1 & 9 Historic District, multiple municipalities (SHPO Opinion 3/8/1996)
- New Jersey Midland Railway/New York, Susquehanna and Western Railroad Historic District, multiple municipalities (SHPO Opinion 4/25/2006 and 1/30/2015)
- Erie Railroad Main Line Historic District, multiple municipalities (SHPO Opinion 2/20/2003)
- Edison Battery Company Property, Town of Kearny (SHPO Opinion 4/8/2008)
- PSE&G Kearny Generating Station, Town of Kearny (SHPO Opinion 5/3/2002)
- St. Peter's Cemetery, City of Jersey City (SHPO Opinion 6/18/1996)
- Erie Railroad Bergen Hill Tunnel [aka Long Dock Tunnel], City of Jersey City (SHPO Opinion 4/27/2000)
- Jersey City High School [William Dickinson High School], City of Jersey City (NJR 12/23/1981; NR 6/1/1982)
- Holbrook Manufacturing Company, City of Jersey City (SHPO Opinion 2/28/1991)
- Continental Can Company Complex, City of Jersey City (SHPO Opinion 5/30/1997)
- Lackawanna Warehouse and Viaduct, City of Jersey City (SHPO Opinion 5/16/1995)
- Grove Street Bridge, City of Jersey City (SHPO Opinion 1/20/1999)

- Engine Company #3, Truck #2 Firehouse, City of Jersey City (NJR 2/9/1984; NR 3/30/1984)
- Erie-Lackawanna Terminal, City of Hoboken (NJR 12/7/2004; NR: 2/17/2005)
- Hoboken Yard / Henderson Street Substation
- Belvedere Court (RGA-25), 264-270 Palisade Avenue, City of Jersey City
- R. Neumann & Co. Factory Complex/300 Observer Highway, City of Hoboken (SHPO Opinion 12/9/2016)
- Hoboken Historic District, City of Hoboken (SHPO Opinion 12/12/2016)
- Mechanic's Trust Company, City of Bayonne (SHPO Opinion 12/9/1994)
- Bayonne Trust Company, City of Bayonne (SHPO Opinion 12/9/1994; COE: 1/30/2002; NJR 4/20/2006; NR 8/8/2006)
- East 17th Street Apartment Buildings Streetscape, City of Bayonne (SHPO Opinion 12/9/1994)
- Maidenform Brassiere Company, City of Bayonne (SHPO Opinion 12/9/1994)
- East 19th Street Streetscape, City of Bayonne (SHPO Opinion 12/9/1994)
- Mount Carmel Historic District, City of Bayonne (SHPO Opinion 2/28/1991)
- YMCA of Bayonne, City of Bayonne (SHPO Opinion 5/5/1997)
- Public School Number 5, City of Bayonne (SHPO Opinion 2/28/1991)
- Lehigh Valley Railroad Historic District, multiple municipalities (SHPO Opinion 3/15/2002)
- PRR New York Bay Branch Historic District, multiple municipalities (SHPO Opinion 9/10/2014)
- Hanover National Bank Repository, City of Jersey City (COE 5/18/2006)
- Communipaw-Lafayette Historic District, City of Jersey City (SHPO Opinion 2/17/1995)
- Ocean Avenue Bridge (SI&A #0950163), City of Jersey City (SHPO Opinion 5/16/1995)
- Bergen Avenue Bridge (SI&A #0900011), City of Jersey City (SHPO Opinion 5/16/1995)
- Former Candy Factory, City of Jersey City (SHPO Opinion 2/28/1991)
- Paulus Hook Historic District, City of Jersey City (NJR 8/7/1981; NR 6/21/1982)
- Van Vorst Park Historic District, City of Jersey City (NJR 8/21/1984; NR 10/11/1984)
- One Exchange Place (Bank Building), City of Jersey City (SHPO Opinion 2/28/1991)
- Commercial Trust Company Bank, City of Jersey City (SHPO Opinion 5/16/1995)
- Hudson and Manhattan Railroad Powerhouse, City of Jersey City (COE 10/7/1999; NR 11/23/2001)
- Warehouse Historic District, City of Jersey City (SHPO Opinion 2/28/1991)
- Great Atlantic and Pacific Tea Company Warehouse, City of Jersey City (NJR 6/2/1978; NR 6/2/1978; NHL 6/2/1978)
- Butler Brothers Warehouse, City of Jersey City (SHPO Opinion 9/5/2013; NJR 10/26/2015)
- Pohlmann's Hall, City of Jersey City, (NJR 7/5/1985; NR 9/5/1985)
- 269-271 Ogden Avenue, City of Jersey City (SHPO Opinion 2/28/1991)
- 268-272 Ogden Avenue, City of Jersey City (SHPO Opinion 2/28/1991)
- Ferguson Brothers Manufacturing Company, City of Hoboken (SHPO Opinion 10/16/1998)

- Old Hillside Road Trolley Horseshoe Curve, multiple municipalities (SHPO Opinion 5/21/1999)
- NJ Route 3 (NJ 495) Highway Approach to Lincoln Tunnel Historic District, Weehawken Township (SHPO Opinion 11/17/1999)
- NJ Route 495 Viaduct (SI&A 3800031), Weehawken Township (SHPO Opinion 5/16/1995)
- Lincoln Tunnel Entrance and Ventilation Buildings, Weehawken Township (SHPO Opinion: 2/28/1991)
- King's Bluff Historic District, Weehawken Township (SHPO Opinion 5/16/1995)

Project Components F and G's use of the HBLR line will involve the installation of new utility poles that will be similar to the HBLR's existing poles in design and color, although taller. The existing poles are approximately 25' in height; the proposed poles will be approximately 39' in height. Based on a review of the analysis in the June 16, 2017 *Historic Architectural Resources Background Survey (HARBS) and Effects Assessment (EA) Report,* it is my opinion as Deputy State Historic Preservation Officer that the proposed Components F and G will not constitute an adverse effect on resources listed in or eligible for inclusion in the NJR and NR.

The proposed project, specifically Project Components D and E, will have an **adverse effect** on the following resources listed in or eligible for inclusion in the NJR/NR:

- Old Main DL&W Railroad Historic District, multiple municipalities (SHPO Opinion 9/24/1996)
 - Rail corridor from Hoboken to Kearny. The rail corridor will be directly affected through the construction of approximately 60 new monopoles and 8 new portals. The effect on the rail corridor has been analyzed in three segments:
 - East of the Bergen Tunnels. The effect will be minimal due to the fact that there will be only be five new poles between the tunnels' eastern portals and the new proposed Hoboken East Substation. Between the substation and the Hoboken Yard, the line will run on the existing HBLR; within the Hoboken Yard the power will utilize poles being constructed as part of a separate project.
 - Portion of the rail corridor between the Bergen Tunnels' western portals and the Hackensack River. This portion of the rail line has maintained a high level of integrity, both in terms of the line itself and its setting. The 24 new poles, although only proposed to be a maximum of 65' tall, will be significantly taller than the rail corridor's existing catenaries and signal bridges and will have a cumulative adverse effect on the rail corridor as well as the following resources in the portion of the corridor immediately west of the Bergen Tunnels: Bergen Tunnels' western portal, the West End Through Truss Bridges, the West End Interlocking Tower, and the DL&W Railroad Boonton Line Historic District. In addition, the proposed 175' monopole immediately east of the Lower Hack Draw Bridge will have an adverse effect on the rail corridor. The adverse effect is based on a cumulative visual effect.

The physical alterations to the West End Truss Bridges and the Bergen Tunnels, two resources that contribute to the Old Main DL&W Railroad Historic District, have been planned to be in accordance with the *Secretary* of the Interior's Standards for Rehabilitation ("Standards"). Therefore, the project's direct physical effect on these contributing resources will not be adverse.

- Portion of the rail corridor between the Hackensack River and the western end of the project at Substation 41. This portion of the rail line has maintained a high level of integrity within the corridor right-of-way, although its setting has been compromised due to the construction of multiple surrounding poles ranging in height from 105' to 300'. The 29 new poles, proposed to be a maximum of 175' tall, will be substantially taller than the rail corridor's existing catenaries and signal bridges and will have a cumulative adverse effect on the rail corridor. In addition, the proposed 175' monopole immediately west of the Lower Hack Draw Bridge will have an adverse effect on the rail corridor.
- Lower Hack Draw Bridge, Town of Kearny and City of Jersey City (SHPO Opinion 9/18/1996), and the Hackensack River Lift Bridges Historic District, Town of Kearny and City of Jersey City (SHPO Opinion 5/3/2002). In order for the line to cross the Hackensack River, the project includes construction of two 175' monopoles in close proximity to the bridge, one on the east river bank and one on the west river bank. The Lower Hack Draw Bridge, which is individually eligible for inclusion in the National Register of Historic Places and is a contributing element of the Old Main DL&W Railroad Historic District as well as the Hackensack River Lift Bridges Historic District, will be adversely affected due to the height of the monopoles in close proximity to the bridge.

800.6 Resolution of Adverse Effects

In accordance with 36 CFR 800.6, the HPO appreciates NJ TRANSIT's consideration of steps to avoid or minimize adverse effects to the Old Main DL&W Railroad Historic District and some of its contributing features, including the possible use of the southern route around NJ TRANSIT's Meadowlands Maintenance Complex, thereby reducing the visual effect to the rail corridor. According to our review of the current plans, running all poles along the rail corridor would require construction of 17 poles and 8 portals on rail line; using the combined route with some of the poles on the southern route would reduce the number to 12 poles and 8 portals on the rail line; and using the southern route would further reduce the number to 8 poles and 1 portal on the rail line.

We look forward to continuing to consult with you to review other possible steps to avoid, minimize, or mitigate the adverse visual effects to the Old Main DL&W Railroad Historic District, the Bergen Tunnels' western portal, the West End Through Truss Bridges, the West End Interlocking Tower, the Lower Hack Draw Bridge, the Hackensack River Lift Bridges Historic District, and the DL&W Railroad Boonton Line Historic District, and to including these provisions within a Memorandum of Agreement (MOA). When developed, the MOA should include, at a minimum, mitigation measures, provisions for the HPO to review and approve project plans as they are further developed, and the requirement for archaeological monitoring in accordance with an archaeological monitoring work plan that is submitted to the HPO for review and comment.

HPO Project# 14-1685-14,-15,-16 HPO-D2018-122 PROD Page 13 of 13

Additional Comments

Thank you again for providing the opportunity to review and comment on this project. The HPO looks forward to receiving a draft MOA for review and comment, as well as an *Application for Project Authorization Under the New Jersey Register of Historic Places Act* (N.J.S.A. 13:1B-15.128 et seq.) pertaining to any properties listed in the New Jersey Register of Historic Places. Please reference the HPO project number 14-1685 in any future calls, emails, submissions, or written correspondence to help expedite your review and response. If you have any questions, please feel free to contact Meghan Baratta at (609) 292-1253 or Vincent Maresca of my staff at (609) 633-2395.

Sincerely,

Katherni J. Marcopul

Katherine J. Marcopul Deputy State Historic Preservation Officer

KJM/MMB/VM/NLZ

C:

Stephen Goodman, Regional Administrator, Region 2 Administrator, Federal Transit Administration Nicholas Marton, Sr., Director, NJ TRANSITGRID, NJ TRANSIT

Harold Olarte, Program Manager, BEM Systems, Inc.

Damon Tvaryanas, Principal Senior Historian, RGA, Inc.

Robert Cotter, Director, Jersey City Historic Preservation Commission

Dennis English, Chairperson, Hoboken Historic Preservation Commission

Mayor Alberto Santos, Town of Kearny

James P. Bruno, Esq., Castano Quigley LLC

Bayonne Historic Preservation Commission

Mayor Brian P. Stack, City of Union City

Mayor Nicholas J. Sacco, Township of North Bergen

Weehawken Historical Commission

Neckole Alligood, Tribal Historic Preservation Officer, Delaware Nation

Blair Fink, Delaware Tribe Historic Preservation Office

Robin Dushane, Tribal Historic Preservation Officer, Eastern Shawnee Tribe of Oklahoma

Kim Jumper, Tribal Historic Preservation Officer, Shawnee Tribe of Oklahoma

Justin Frohwirth, President, City of Jersey City Landmarks Conservancy

Robert Foster, Director, Hoboken Historical Museum

William LaRosa, Director, Hudson County Office of Cultural Affairs & Tourism

Mr. Richard Wilson, President, Jersey Central Chapter, National Railway Historical Society

Jim Mackin, President, Roebling Chapter, Society for Industrial Archeology

Dr. Ilene Grossman-Bailey, President, Archaeological Society of New Jersey

Gerard Karabin, City Historian, Union City Museum of History

Attachment 3

Advisory Council on Historic Preservation (ACHP) letter to Federal Transit Administration (FTA), dated May 16, 2019



May 16, 2019

Mr. Daniel Moser Community Planner Federal Transit Administration 1 Bowling Green, Room 429 New York, NY 10004

Ref: Proposed New Jersey TransitGrid Traction Power System Project Town of Kearny, Hudson County, New Jersey ACHPConnect Log Number: 013929

Dear Mr. Moser:

The Advisory Council on Historic Preservation (ACHP) has received your notification and supporting documentation regarding the adverse effects of the referenced undertaking on a property or properties listed or eligible for listing in the National Register of Historic Places. Based upon the information you provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, "Protection of Historic Properties" (36 CFR Part 800), does not apply to this undertaking. Accordingly, we do not believe that our participation in the consultation to resolve adverse effects is needed. However, if we receive a request for participation from the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer, affected Indian tribe, a consulting party, or other party, we may reconsider this decision. Additionally, should circumstances change, and you determine that our participation is needed to conclude the consultation process, please notify us.

Pursuant to 36 CFR §800.6(b)(1)(iv), you will need to file the final Programmatic Agreement (PA), developed in consultation with the New Jersey State Historic Preservation Officer (SHPO) and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the PA and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with your notification of adverse effect. If you have any questions or require further assistance, please contact Sarah Stokely at (202) 517-0224 or by email at sstokely@achp.gov.

Sincerely,

RaShavio Johnson

LaShavio Johnson Historic Preservation Technician Office of Federal Agency Programs

ADVISORY COUNCIL ON HISTORIC PRESERVATION

Attachment 4

Old Main Delaware, Lackawanna and Western Railroad Historic District from Hoboken Terminal to the Delaware River in Warren County, NJ



Attachment 5

Areas of Archaeological Sensitivity





Figure 8.1: Aerial photograph showing the APE and areas of archaeological sensitivity within Project Component G, Section 1 and a portion of Project Component G, Section 2 (World Imagery, ESRI 2014).



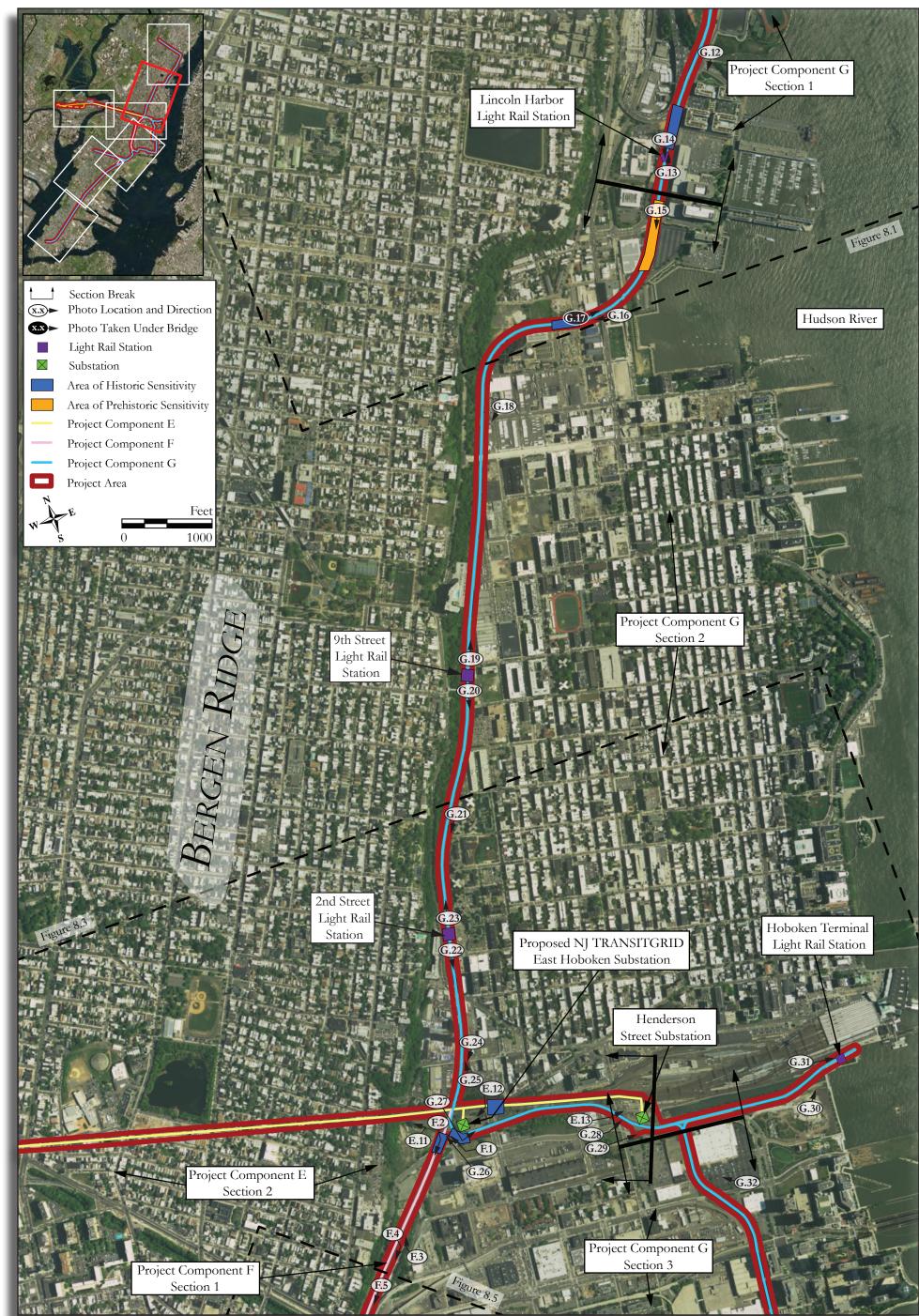


Figure 8.2: Aerial photograph showing the APE and areas of archaeological sensitivity within the eastern portion of Project Component E, the northern portion of Project Component F, Section 1 and portions of Project Component G, Sections 1, 2 and 3 (World Imagery, ESRI 2014).

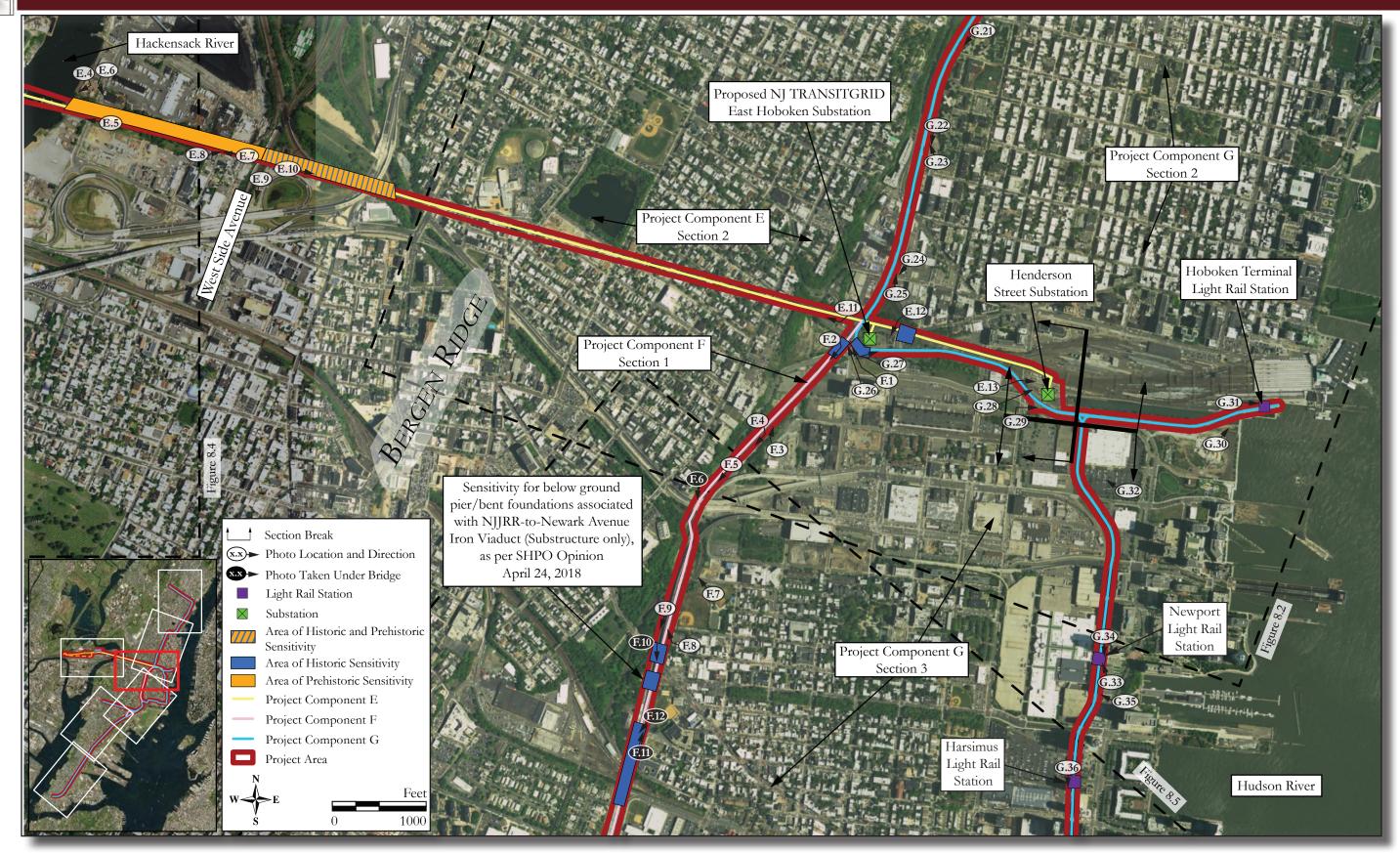


Figure 8.3: Aerial photograph showing the APE and areas of archaeological sensitivity within the eastern portion of Project Component E, the northern portion of Project Component F, Section 1 and portions of Project Component G, Sections 2 and 3 (World Imagery, ESRI 2014). Figure Updated August 7, 2019 as per SHPO Opinion April 24, 2018.

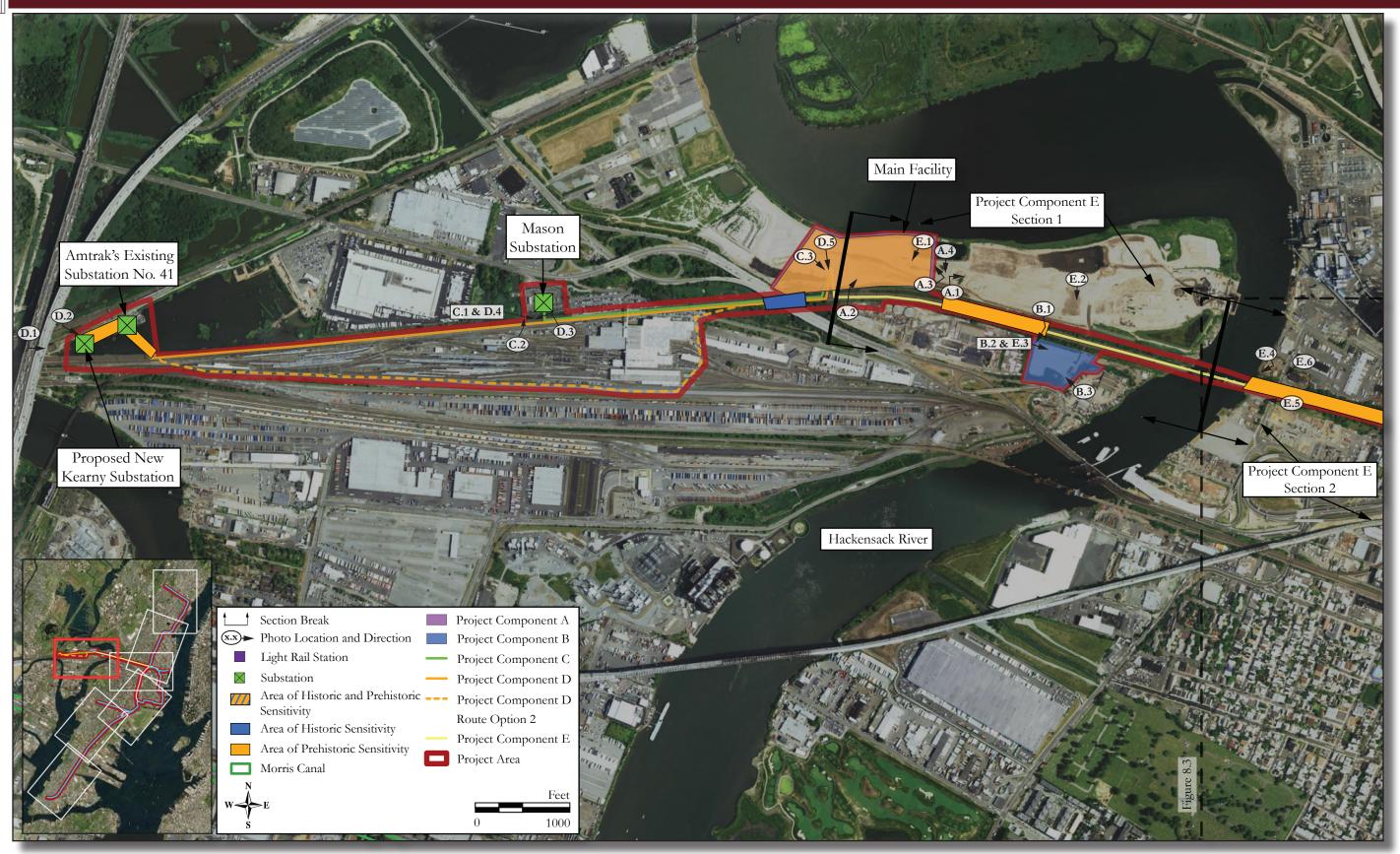


Figure 8.4: Aerial photograph showing the APE and areas of archaeological sensitivity within Project Components A, B, C, D, and a portion of Project Component E (World Imagery, ESRI 2014).



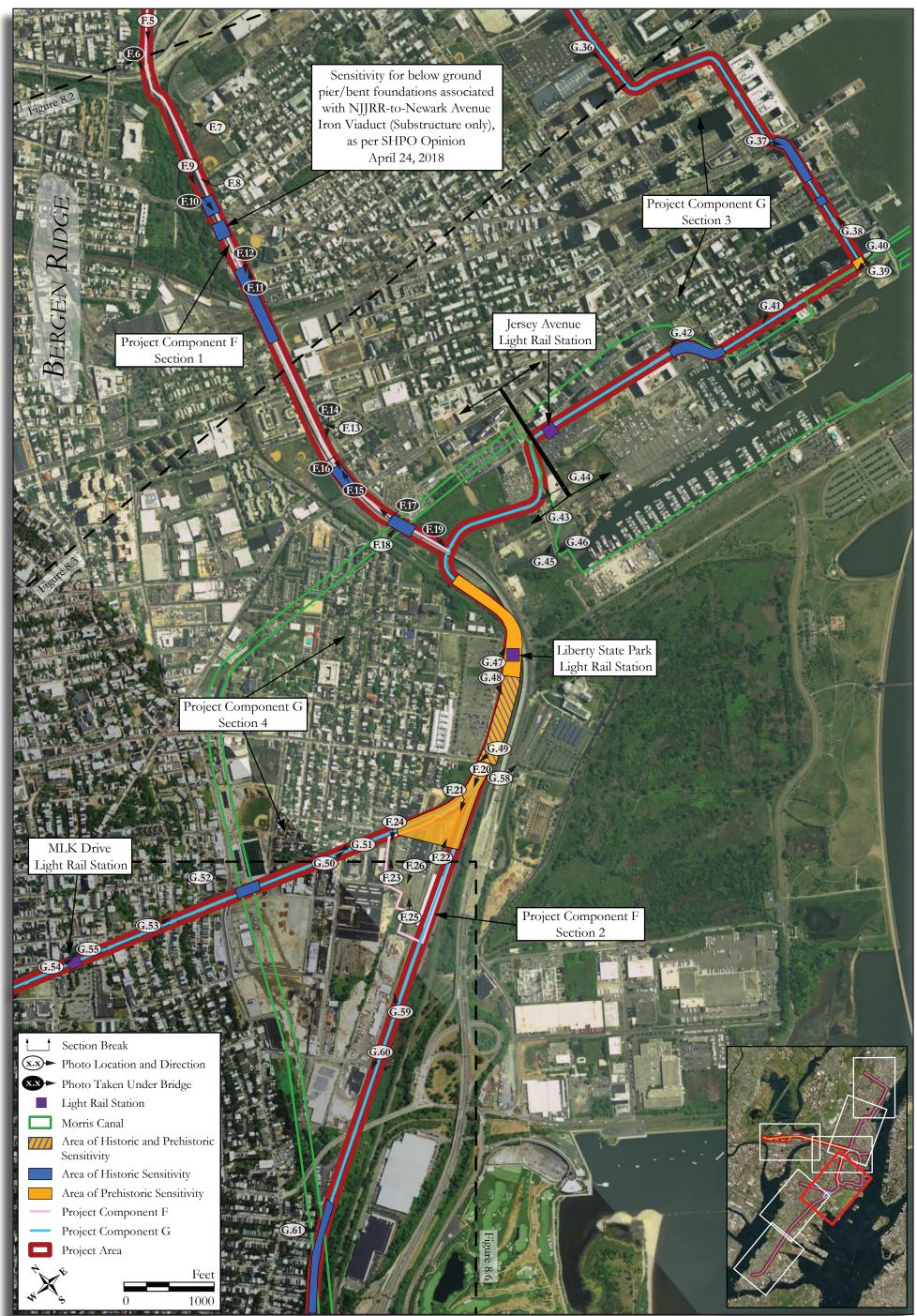


Figure 8.5: Aerial photograph showing the APE and areas of archaeological sensitivity within the Project Component F, Section 2, and portions of Project Component F, Section 1 and Project Component G, Sections 3 and 4 (World Imagery, ESRI 2014). Figure Updated August 7, 2019 as per SHPO Opinion April 24, 2018.



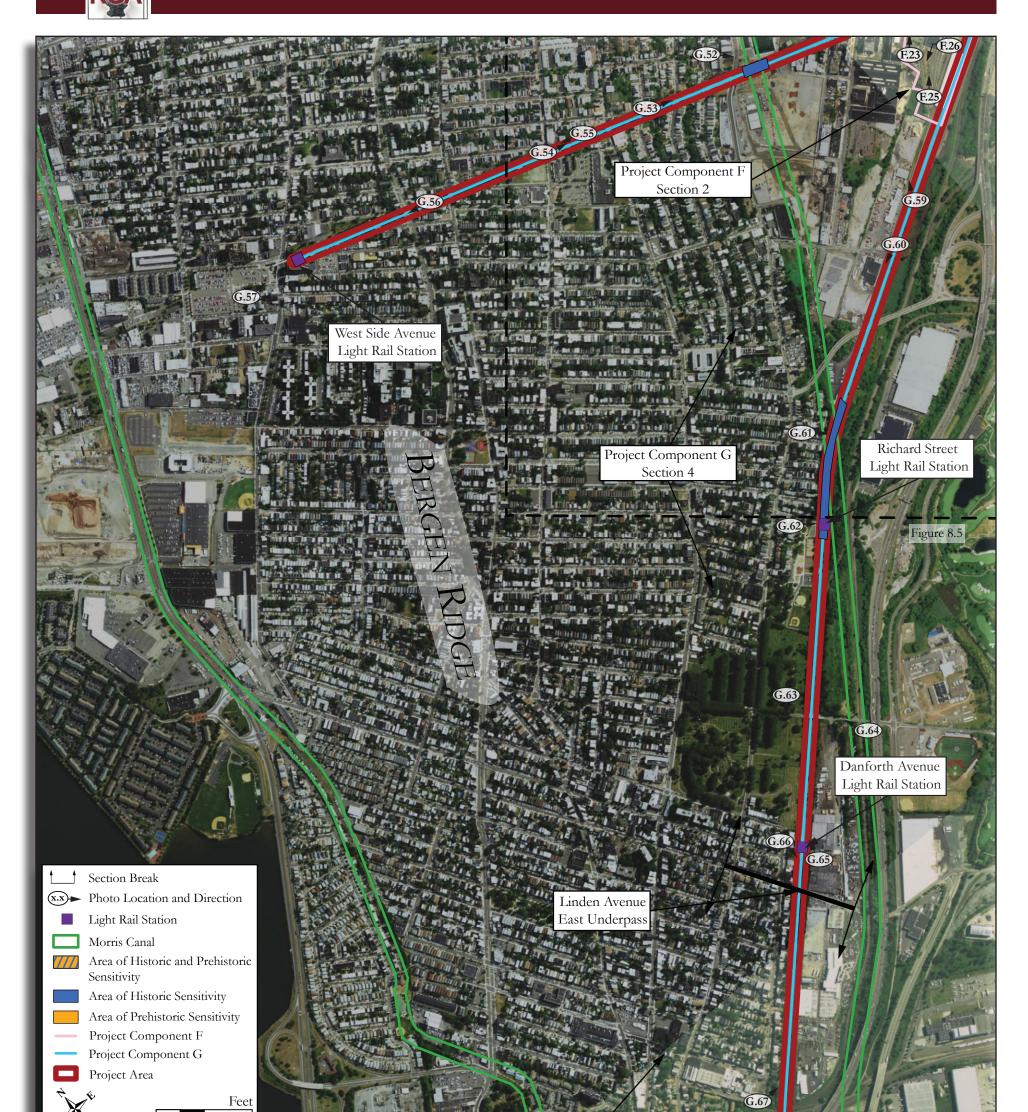




Figure 8.6: Aerial photograph showing the APE and areas of archaeological sensitivity within portions of Project Component F Section 2 and Project Component G, Sections 4 and 5 (World Imagery, ESRI 2014).





Figure 8.7: Aerial photograph showing the APE and areas of archaeological sensitivity within a portion of Project Component G, Section 5 (World Imagery, ESRI 2014).

Attachment 6

References from Historic Architectural Resources Background Study and Effects Assessment (HARBS/EA) and Bibliography from Supplemental Information for the Phase 1A Archaeological Survey (Phase 1A) for the NJ TRANSITGRID TRACTION POWER SYSTEM

REFERENCES

(excerpt from Historic Architectural Resources Background Study and Effects Assessment (HARBS/EA) for the NJ TRANSITGRID TRACTION POWER SYSTEM. June 2017. Prepared by Richard Grubb and Associates, Inc.)

A.G. Lichtenstein & Associates, Inc.

1994 New Jersey Historic Bridge Survey. Prepared for the New Jersey Department of Transportation, Bureau of Environmental Analysis, Trenton, New Jersey. Updated 3/1/2001. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Adams, George R.

1977 National Register of Historic Places Nomination Form, Great Atlantic & Pacific Tea Company Warehouse. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

ARCH₂, Inc.

2001a Historic Architectural Sites Survey for the Proposed Expansion of the Meadows Maintenance Complex Rail Yard, Town of Kearney, Hudson County, New Jersey for Review under Section 106 of the National Historic Preservation Act. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2001b Cultural Resources Survey for the AT&T Wireless E-39-A Cell Site, 4816 Palisade Avenue, Block 281, Lot 18, Union City, Hudson County, New for Review Under Section 106 of the National Historic Preservation Act. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2002a Cultural Resources Survey for the AT&T Wireless Site #901-005-308, 500 Baldwin Avenue, Block 709.5, Lots 61, 61, and 63, Jersey City, Hudson County, New Jersey for Review under Section 106 of the National Historic Preservation Act. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2002b Cultural Resources Survey for the AT&T Wireless #901005306 Site, 110 First Street, Block 200, Lot 1, City of Hoboken, Hudson County, New Jersey for Review under Section 106 of the National Register Preservation Act. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2002c Cultural Resources Survey for the Verizon Wireless Jersey City 16 Site, 369 Observer Highway, Block 139, Lot 1.2, City of Hoboken, Hudson County, New Jersey for Review under Section 106 of the National Preservation Act. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2002d Determination of Effect, IVI Project No: E2022820, Nextel Site No.: NJ-2384, Nextel Site Name: Hoboken 4, 201-215 Willow Avenue, Hoboken, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2002e Cultural Resources Survey for the Verizon Wireless, Bayonne 2 Cell Site, 201 Broadway, Block 305, Lot 14, City of Bayonne, Hudson County, New Jersey for Review under Section 106 of the National Historic Preservation Act. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Archaeological & Historical Consultants, Inc. (A&HC)

2004a Proposed Collocation Project, Section 106 Field Assessment, Holland Tunnel, 629 Grove Street, Jersey City, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2004b Proposed Rooftop Telecommunications Project, Port Imperial, 20 48th Street, Weehawken, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Baer, Christopher T., William J. Coxey and Paul W. Schopp

1994 The Trail of the Blue Comet: A History of the Jersey Central's New Jersey Southern Division, The West Jersey Chapter of the National Railway Historical Society, Palmyra, New Jersey.

Bailey, O. H. and A. Ward

1881 The City of Hoboken, New Jersey. O.H. Bailey & Co., Boston, Massachusetts.

Baraff, Ron

2012 "Commercial Construction: How can one determine if a steel beam marked "CARNEGIE H USA" is Circa 1925? 1934? 1960?". Electronic document, www.quora.com, accessed September 20, 2016.

Bardin, David J.

1975 David J. Bardin, Commissioner, Department of Environmental Protection, to Maurice Arnold, Regional Director, Bureau of Outdoor Recreation, October 1, 1975. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Bevan, J.

1851 City Map of Hoboken. J. Bevan, civil engineer, New York.

Beyer Blinder Belle Architects & Planners
2002 Hoboken Terminal, Façade Condition Assessment Report. On file, New Jersey Historic Preservation
Office, Trenton, New Jersey.
2005 Hoboken Terminal, Façade Condition Assessment Report. On file, New Jersey Historic Preservation
Office, Trenton, New Jersey.

Bezilla, Michael 1980 Pennsylvania Railroad Electrification Strategy. *Business and Economic History* 9:143-151.

Bromley, George W. and Walter S. 1887 *Atlas of Jersey City, New Jersey*, Plates G, H, and I. G.M. Bromley & Co., Philadelphia, Pennsylvania

Carmelich, Julie P. and Stacy Spies 2004 Erie-Lackawanna Terminal National Register Nomination. Metuchen NJ: ARCH2, Inc.

Charles Wyatt Associates 1984 National Register of Historic Places Nomination Form, Pohlmann's Hall. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Clark, Carol Ann 1979 Southern Hoboken Historic District National Register Nomination. Hoboken, New Jersey.

Clerk & Bacot 1851 Map of Jersey City, Hoboken, and Vicinity. Daniel E. Gavit, Jersey City, New Jersey.

Cultural Resource Consulting Group (CRCG) 2003 Phase II Cultural Resource Investigation, Commerce Bank, N.A., Proposed Branch, 45-47 Newark Street, City of Hoboken, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Cultural Resource Management Services (CRMS) 1978 A Preliminary Architectural Survey for the Erie-Lackawanna Improvements Program. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Cunningham, John T. 1997 Railroads in New Jersey: The Formative Years. Andover NJ: Afton Publishing Co. Delaware Lackawanna & Western Railroad Company (DL&WRR)
1909 Annual Report of the Delaware, Lackawanna & Western Railroad Company. L. Middleditch Co., New York, New York.
1929 Annual Report of the Delaware, Lackawanna & Western Railroad Company. New Jersey Tax Department, Engineering Division, Published Annual Reports of Railroad Companies. On file, New Jersey State Archives, Trenton, New Jersey.
1930 Annual Report of the Delaware, Lackawanna & Western Railroad Company. New Jersey Tax Department, Engineering Division, Published Annual Reports of Railroad Company. New Jersey Tax Department, Engineering Division, Published Annual Reports of Railroad Company. New Jersey Tax Department, Engineering Division, Published Annual Reports of Railroad Company. New Jersey Tax Department, Engineering Division, Published Annual Reports of Railroad Company. New Jersey Tax Department, Engineering Division, Published Annual Reports of Railroad Company. New Jersey Tax Department, Engineering Division, Published Annual Reports of Railroad Companies. On file, New Jersey State Archives, Trenton, New Jersey.
DeLeuw, Cather and Company

1991 NJ Transit Historic Railroad Bridge Survey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Duer, J. V. B.

1931 The Pennsylvania Railroad Electrification. Journal of the American Institute of Electrical Engineers. 49(9):101-105.

Dolan Research, Inc.

1997 Archaeological Assessment of the Long Slip Canal, Hoboken and Jersey City, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Douglass, L. F.

1841 Topographical Map of Jersey City, Hoboken, and the Adjacent Country. Benjamin S. Demarest, New York

Eaton, Harriet Phillips

1899 Jersey City and its Historic Sites. The Woman's Club of New Jersey. Press of A.V. Haight, Poughkeepsie, New York.

EFB Associates, LLC (EFB)

2010 City of Hoboken Reexamination Report. Electronic document, http://www.hobokennj.org/, accessed May 29, 2016.

ESRI

2013 World Street Map. Web Map Service, http://www.esri.com/data/free-data/index.html, accessed December 2015.

Federal Railroad Administration (FRA)

2008 Portal Bridge Capacity Enhancement Project, Final Environmental Impact Statement and Final Section 4(f) Evaluation. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Federal Transit Administration (FTA)

2008a Access to the Region's Core, Draft Environmental Impact Statement, Historic Architectural Resources Background Study and Effects Assessment. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2008b Access to the Region's Core in Hudson County, New Jersey and New York County, New York, Final Environmental Impact Statement. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Federal Writer's Project 1939 The WPA Guide to 1930s New Jersey. 1939 The Viking Press, reprinted 1986 Rutgers University Press, New Brunswick, New Jersey.

Fekete, Andras

1997 Andras Fekete, NJ Department of Transportation to Dorothy Guzzo, Deputy Historic Preservation Officer, May 30, 1997 (HPO Log #97-1500). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Fenske, Helen C.

1983 Helen C. Fenske, Deputy Historic Preservation Officer to Mark Munley, Department of Housing & Economic Development, November 23, 1983 (HPO Log # K83-85). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Flagg, Louis Francis

1935 History and Construction of the Electrical Substation of the Pennsylvania Railroad at Landover, Maryland. Unpublished initiation requirement of Maryland Beta Chapter, Maryland.

Ford Farewell Mills and Gatsch

1994 Hoboken North Wall Interior Plaster Finish Alternatives Analysis, New Jersey Transit Hoboken Terminal, Hoboken, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Frederic R. Harris, Inc.

1989 State of New Jersey Department of Environmental Protection, Division of Parks and Forestry, Waterfront Rehabilitation Study, Morris Canal Basin, Liberty State Park, Jersey City, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2000 Historic Architecture Report for Route 139 Contract no. 000970191 (Contract 3), Structure No. 0904-151 – Conrail Viaduct, Structure No. 0904-152 – Hoboken Viaduct, Jersey City, Hudson County. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Florio, Patricia 1978-81 Hoboken Historic Site Survey. Hoboken: Hoboken Community Development Agency.

G.M. Hopkins Co.

1873 Atlas of the State of New Jersey and the County of Hudson, Hoboken Plates A and B and Jersey City Plates B, F, and G. G.M. Hopkins Co., Philadelphia, Pennsylvania.

1909 Atlas of Hudson County, New Jersey, Volume II. G.M. Hopkins Co., Philadelphia, Pennsylvania. 1934 Atlas of Hudson County, New Jersey, Volume II. G.M. Hopkins Co., Philadelphia, Pennsylvania.

Gabrielan, Randall 2010 Hoboken: History & Architecture at a Glance. Atglen PA: Schiffer Publishing Limited.

Geismar, Joan H.

1992 Stage IA Cultural Resources Survey of the Impact Area of New Jersey Turnpike Secaucus Interchange Project, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1998 1A Documentary Study of Proposed New Boulevard and Long Slip Alignments, Hudson Bergen Light Rail Transit System (HBLRTS), Jersey City-Hoboken, Hudson County, New Jersey, February 1998. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Geraghty & Miller, Inc., D'Appolonia Consulting Engineers, Inc. and Koppers Company, Inc. 1981 Koppers Company, Inc. Seaboard Plant, Kearny New Jersey. Working Paper No. 1, Site Rehabilitation Alternatives. Electronic Document, accessed http://www.nj.gov/dep/passaicdocs/docs/3rd-PartyComplaintNexusPackages/3rd-PartyComplaintB-2Nexus/KoppersCompanySites.pdf, March 26, 2014. Gomez, John K.

1999 National Register of Historic Places Nomination Form, Hudson and Manhattan Railroad Powerhouse. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Greenhouse Consultants Incorporated

1996 Stage 2 Archaeological Investigations of the New Jersey Turnpike Secaucus Interchange Project, St. Peter's Cemetery Portion, Jersey City, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Grow, Lawrence

1979 On the 8:02: An Informal History of Commuting by Rail in America. Mayflower Books, Inc., New York, New York.

Guzzo, Dorothy

1995 Dorothy Guzzo, Deputy Historic Preservation Officer to David Spatz, AICP, P.P., Community Housing

& Planning Associates, Inc. October 18, 1995 (HPO Log # J95-113). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1996 Dorothy Guzzo, Deputy Historic Preservation Officer to Andras Fekete, NJ Department of Transportation, September 24, 1996 (HPO Log # 196-131). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1998a Dorothy Guzzo, Deputy Historic Preservation Officer to Chitra R. Radin, Project Manager, New Jersey

Transit, October 16, 1998 (HPO Log # E99-116). On file, New Jersey Historic Preservation Office, Trenton, New Jersey

1998b Dorothy Guzzo, Deputy Historic Preservation Officer to Paul McGinley, McGinley Hart & Associates LLP, November 12, 1998 (HPO Log # K98-29). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1999a Dorothy Guzzo, Deputy Historic Preservation Officer to David Koenig, Historic Preservation Specialist, New Jersey Transit, January 20, 1999 (HPO Log # A99-53). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1999b Dorothy P. Guzzo, Deputy State Historic Preservation Officer to Steve Hochman, Bureau of Environmental Services, New Jersey Department of Transportation, March 10, 1999 (HPO-C99-76). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1999c Dorothy P. Guzzo, Deputy State Historic Preservation Officer to R. Jeffrey Lanigan, New Jersey Department of Transportation, May 7, 1999 (HPO Log #99-1161). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1999d Dorothy Guzzo, Deputy Historic Preservation Officer to Robin Schroeder, Federal Highway Administration, May 21, 1999 (HPO Log # J98-74). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1999e Dorothy Guzzo, Deputy Historic Preservation Officer to Steve Hochman, Environmental Team Leader, New Jersey Department of Transportation, November 17, 1999 (HPO Log # K99-97). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2000 Dorothy Guzzo, Deputy State Historic Preservation Officer to Steven Hochman, NJ Department of Transportation, April 27, 2000 (HPO Log # 00-0690). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2002a Dorothy Guzzo, Deputy Historic Preservation Officer to Andras Fekete, NJ Department of Transportation, March 15, 2002 (HPO Log # 02-1100). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2002b Dorothy Guzzo, Deputy State Historic Preservation Officer, to Brian Mulcahy, New Jersey Department of Transportation (HPO Log #02-1526). May 3, 2002. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2002c Dorothy Guzzo, Deputy Historic Preservation Officer to Jack McQuillan, Manager, Bureau of Environmental Services, New Jersey Department of Transportation, October 2, 2002 (HPO Log #

02-2934). On file, New Jersey Historic Preservation Office, Trenton, New Jersey. 2004 Dorothy Guzzo, Deputy Historic Preservation Officer to Geoffrey M. Goll, P.E., Vice President, Princeton Hydro, LLC, April 27, 2004 (HPO Log # D2005-205). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2005 Memorandum, Dorothy Guzzo, Deputy Historic Preservation Office to William McLaughlin, Land Use Regulation Program, NJ Department of Environmental Protection, April 22, 2005 (HPO Log # 05-1020-1 and 2). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2006a Dorothy P. Guzzo, Deputy State Historic Preservation Officer to David Koenig, Historic Preservation Specialist, New Jersey Transit, March 7, 2006 (HPO Log # 03-1843-4). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2006b Dorothy P. Guzzo, Deputy State Historic Preservation Officer to David Koenig, Historic Preservation Specialist, New Jersey Transit, April 25, 2006 (HPO Log # 05-0759-8). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2007 Dorothy Guzzo, Deputy State Historic Preservation Officer, to Joseph G. Sweger, New Jersey Department of Transportation (HPO Log #07-1411-1). 29 June. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Hall, James F.

1991a James F. Hall, Deputy State Historic Preservation Officer, to Chitra R. Radin, Project Manager, New Jersey Transit, February 28, 1991 (HPO Log #91-4). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1991b James F. Hall, Deputy State Historic Preservation Officer, to Daniel R. Wall, Office of Community Development, November 12, 1991 (HPO Log #K91-36). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1994a James F. Hall, Deputy State Historic Preservation Officer, to David Koenig, Historic Preservation Specialist, New Jersey Transit, September 12, 1994 (HPO Log #94-1898). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1994b James F. Hall, Deputy State Historic Preservation Officer, to David Koenig, Historic Preservation Specialist, New Jersey Transit, December 9, 1994 (HPO Log #94-27). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1995 James F. Hall, Deputy State Historic Preservation Officer, to David Koenig, Historic Preservation Specialist, New Jersey Transit, February 17, 1995 (HPO Log #95-50). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Hamilton, Cindy

2013 Historic Preservation Certification Application, Butler Brothers Warehouse. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Hassler, F.R.

1844 Map of New-York Bay and Harbor and the Environs. Survey of the Coast of the United States, Washington, D.C.

Hayles & Howe, Inc.

2004 Hoboken Ferry Terminal, Photographic Documentation, Concourse, North Wall. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Heritage Studies

1982 Preliminary Case Report: Columbian Tower, Housing for the Elderly and Handicapped, H U D Project #NJ39-T811-021/031 - EHO 83, Hoboken, New Jersey. On file, Historic Preservation Office, Trenton, New Jersey.

Heyer, Gruel & Associates

2008 Master Plan Reexamination Report / Master Plan Revision, Town of Kearny, Hudson County, New Jersey. On file, Town Hall Annex, Kearny, New Jersey.

Hills, John

1781 A Sketch of the Northern Parts of New Jersey. Copied from the original by Lieut. J. Hills, 23d Regt., 1781. Reprinted circa 1976 by Portolan Press, Brielle, New Jersey.

Historic Conservation and Interpretation, Inc. (HCI)

1977 Cultural Resources Reconnaissance, Liberty State Park. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1978a Cultural Resource Survey, Hudson County Sewerage Authority, 201 Wastewater Facility Plan, Planning Area I. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1978b Stage IA Cultural Resource Survey for the Hudson County Sewerage Authority, 201 Wastewater Facility

Plan--District II, Bayonne, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Historic Sites Research

1978 Cultural Resource Reconnaissance, Jersey City Reach, New York Harbor Collection & Removal of Drift Project. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1979 Information Recording (Task I Survey), Greenville Yards, Jersey City, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1980 Hudson River Route Feasibility and Locational Study, Environmental Impact Statement, Technical Report No. 8. Cultural Resources, Vol. II, Appendices, August 1979, Revised June 1980. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1983a Cultural History & Recording to Archival Standards of the Greenville Yard, Jersey City, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1983b Cultural History Recording of the Greenville Yard, Jersey City, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Hoboken Museum

2015 "Short History of Hoboken," published on the Museum website https://www.hobokenmuseum.org/history/short-history-of-hoboken, accessed 1/5/2016.

Hopkins, G.M.

1873 Combined Atlas of the State of New Jersey and the County of Hudson. G.M. Hopkins, Philadelphia, Pennsylvania.

1909 Atlas of Hudson County, New Jersey, Volume 2. G.M. Hopkins & Co., Philadelphia, Pennsylvania. 1934 Atlas of Hudson County, New Jersey, Volume 2. G.M. Hopkins & Co., Philadelphia, Pennsylvania.

Hornsby, Michael L. and Peter W. Sawchuck, P.E.

1999 Brownfield Redevelopment of Koppers Seaboard Site in Kearny, New Jersey. Practice Periodical of Hazardous, Toxic and Radioactive Waste Management 32(2): 88-93.

Hughes and Bailey 1904 City of Hoboken, New Jersey. Hughes & Bailey, New York.

Interstate Commerce Commission

1925 Delaware Lackawanna & Western Railroad, Land and Engineering Reports, 1916-1925. Board of Public Utility Commissioners, Interstate Commerce Commission Land and Engineering Valuation Reports on New Jersey Railroad and Ferry Company Properties. On file, New Jersey State Archives, Trenton, New Jersey.

IVI International, Inc.

2003 Section 106 Survey Bayonne North Route 169 & New Hook Road, Bayonne, Hudson County, NJ 07002. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Jan Hird Pokorny Associates (JHPA)

1990 Conditions Survey and Cost Estimate for Restoration and Rehabilitation of the Eerie Lackawanna Railroad and Ferry Terminal, Hoboken, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Jersey City Division of City Planning (JCDCP)

2000 Jersey City Master Plan, Volume I. Electronic document, http://www.cityofjerseycity.com/cityplanning/, accessed March 30, 2016.

Kardas, Susan and Edward Larrabee

1979 Hudson River Route Feasibility and Locational Study Evironmental Impact Statement, Technical No. 8, Cultural Resources. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Karnousis, Carmela A.

2005 National Register of Historic Places Nomination Form, Bayonne Trust Company. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Karschner Terry

2008 Terry Karschner, Deputy State Historic Preservation Officer to Mark E. Yachmetz, Associate Administrator for Railroad Development, U.S. Department of Transportation, April 8, 2008 (HPO Log #05-2386-6). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Kise Franks & Straw

1995 Survey of Historic Architectural Resources, Charlotte Circle & Tonnele Circle, Jersey City, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Kraft, Herbert C.

1978 Appendix G – Historical and Archaeological Survey, Hudson County Sewer Authority Facility Plan, Area III. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.
1979 Cultural Resources Survey of the Hudson County Utilities Authority Facilities Plan-Area III from Hoboken to Guttenberg, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Lane, Wheaton J.

1939 From Indian Trail to Iron Horse: Travel and Transportation in New Jersey, 1620-1860. Princeton University Press, Princeton, New Jersey.

Lange, Robie S.

1993 National Historic Landmark Nomination Form, Holland Tunnel. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Leir, Ron

2012 "Anticipate Koppers Redevelopment Plan." *The Observer*, December 19, 2012. Electronic Document, http://www.theobserver.com/?p=13053, accessed March 26, 2014.

Lichtenstein Consulting Engineers

1998 NJDOT Historic Architectures Report for Route 139, Structure # 0904-153, 12th Street Viaduct, Structure # 0904-154, 14th Street Viaduct, Jersey City, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2003 National Register of Historic Places Nomination Form, Route 1 Extension, Cities of Newark, Jersey City and Kearny, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Louis Berger & Associates, Inc.

1983 Environmental Technical Report, Analysis of Cultural Resources, Newport City Development Site, Jersey City, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Ludwig, Charles Herbert

1934 The History and Methods of Electrification of the Pennsylvania Railroad Between Baltimore and Washington, D.C. Unpublished initiation requirement of Maryland Beta Chapter, Tau Beta Pi, Maryland.

Lynn Drobbin and Associates

1995a NJ Transit, Hudson-Bergen Light Rail Transit System, Request for a Determination of Effect, Hudson and Bergen Counties, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1995b NJ Transit, Hudson River Waterfront Corridor Light Rail Transit Final Environmental Impact Statement,

Historic Architectural Resources Background Study. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1995c NJ Transit, Hudson-Bergen Light Rail Transit System, Aetna Street Alignment, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1995d Historic American Engineering Record, National Docks Branch Bridge N.D.2F (Conrail Bridge 2.77), Spans the former Central Railroad of New Jersey, west of the New Jersey Turnpike, north of Communipaw Avenue near Johnson Avenue, Jersey City, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1997a Morris and Essex Lines, Station Rehabilitation Master Planning and Conceptual Design Project, Historic Corridor Analysis, Morristown Line and Montclair Branch, Phase I. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1997b Historic American Engineering Record, Hudson & Manhattan Railroad Repair Shops (Hoboken Shops of the Port Authority Trans-Hudson (PATH) Track & Structures Division), 55 Hudson Street, Hoboken, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1997c Historic American Engineering Record, New York, West Shore & Buffalo Railroad, Weehawken Tunnel (west Shore Railroad, Weehawken Tunnel), Weehawken, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

1998 Hudson-Bergen Light Rail Transit System, West Side Alignment, Historic Architectural Resources Background Study and Effects Assessment. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2001 Historic American Engineering Record (HAER), Delaware, Lackawanna & Western Railroad Freight & Rail Yard, Multiple Unit Light Inspection Shop (Delaware, Lackawanna & Western Railroad Freight Yard & Rail Yard, Hoboken Terminal MU Shed), Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2008 Section 106, Historic Architectural Research, Background Study and Effect Assessment for the NJ Transit Rehabilitation of Lower Hack Lift Railroad Bridge, Jersey City and Kearny, Hudson County. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Machcinski, Anthony J.

2013 Sandy-battered iconic Hoboken Terminal waiting room to reopen Tuesday. nj.com: http://www.nj.com/hudson/index.ssf/2013/01/iconic_hoboken_terminal_waitin.html, accessed 1/6/2016.

Marshall, Sydney B.

1981 New York Harbor Collection and Removal of Drift Project, Cultural Resource Reconnaissance: Hoboken to North Bergen Reach, Army Corps of Engineers, New York District. On file, Army Corps of Engineers, New York, New York.

2004 The Meadowlands before the Commission: Three Centuries of Human Use and Alteration of the Newark and Hackensack Meadows. *Urban Habitats* 2(1):4-27. Electronic Document, www.urbanhabitats. org, accessed March 1, 2012.

Mary B. Dierickx Architectural Preservation Consultants

1985 *Phase 2 Survey, Jersey City.* On file, New Jersey Historic Preservation Office, Trenton, New Jersey. 1997 Monmouth & Cole Streets Improvement Study, Assessment of Cultural Resources, Jersey City, Hudson County. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Messer, David W. and Charles S. Roberts 2002 Triumph V Philadelphia to New York 1830-2002. Barnard, Roberts and Co., Inc., Baltimore, Maryland.

Miller, Edmund William. 1910 Bergen: Jersey City. Jersey City, New Jersey.

National Park Service 1995 How to Apply the National Register Criteria for Evaluation. *National Register Bulletin* 15. National Park Service, Washington, DC.

Nationwide Environmental Title Research (NETR)

1953 Historic Aerial Photographs. Electronic Document, historicaerials.com, accessed March 26, 2014. 1954 Historic Aerial Photographs. Electronic Document, historicaerials.com, accessed March 26, 2014. 1966 Historic Aerial Photographs. Electronic Document, historicaerials.com, accessed March 26, 2014. 1979 Historic Aerial Photographs. Electronic Document, historicaerials.com, accessed March 26, 2014. 1979 Historic Aerial Photographs. Electronic Document, historicaerials.com, accessed January 25, 2017. 1987 Historic Aerial Photographs. Electronic Document, historicaerials.com, accessed January 25, 2017. 1994 Historic Aerial Photographs. Electronic Document, historicaerials.com, accessed January 25, 2017. 1995 Historic Aerial Photographs. Electronic Document, historicaerials.com, accessed January 25, 2017. 1997 Historic Aerial Photographs. Electronic Document, historicaerials.com, accessed January 25, 2017. 1997 Historic Aerial Photographs. Electronic Document, historicaerials.com, accessed January 25, 2017. 2000 Historic Aerial Photographs. Electronic Document, historicaerials.com, accessed January 25, 2017. 2000 Historic Aerial Photographs. Electronic Document, historicaerials.com, accessed January 25, 2017. 2002 Historic Aerial Photographs. Electronic Document, historicaerials.com, accessed January 25, 2017. 2009 Historic Aerial Photographs. Electronic Document, historicaerials.com, accessed January 25, 2017. 2009 Historic Aerial Photographs. Electronic Document, historicaerials.com, accessed January 25, 2017. 2010 Historic Aerial Photographs. Electronic Document, historicaerials.com, accessed January 25, 2017. 2010 Historic Aerial Photographs. Electronic Document, historicaerials.com, accessed January 25, 2017.

New Jersey Department of Environmental Protection (NJDEP)

1930 Aerial Photograph, Hudson County, New Jersey. NJ GeoWeb, New Jersey Department of Environmental Protection, Trenton, New Jersey. http://njwebmap.state.nj.us/NJGeoWeb/WebPages/ Map/MapViewer.aspx. Accessed March 18, 2014.

1990 Draft Environmental Impact Statement for the Colgate-Palmolive Redevelopment Area, Jersey City, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

New Jersey Department of Transportation (NJDOT)

1980 Preliminary Cultural Assessment for Proposed Widening of Route 1 and 9/Tonnelle Avenue, Bergen and Hudson Counties, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

New Jersey Historic Preservation Office (NJHPO)

1999 Guidelines for Architectural Survey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

New Jersey Meadowlands Commission

2012 Koppers Coke Redevelopment Plan, Kearny New Jersey. Electronic Documents, http://www.njmeadowlands.gov/public/notices/2013/Koppers%20Redevelopment%20Plan%20DRAFT%2012-2012.pdf, accessed March 26, 2014.

New Jersey Secretary of State

1871 Transportation Corporation File Records, Newark & New York Railroad (RR 326). Secretary of State Transportation Corporation Records. On file, New Jersey State Archives, Trenton, New Jersey.

New Jersey State Board of Assessors

1910 Delaware Lackawanna & Western Railroad Field Notebooks, Morris & Essex Division, Box 15, Vols. 514 and 519. Records of the 1910-1911 Revaluation of Railroads and Canals in New Jersey. On file, New Jersey State Archives, Trenton, New Jersey.

New Jersey Transit Corporation (NJ TRANSIT)

1994 Cultural Resources Supplemental Report of the Northeast Corridor for the Secaucus Transfer Project. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2006 Access to the Region's Core, Draft Environmental Impact Statement, Historic Architectural Resources Background Study and Effects Assessment, Volume I.

2008 Access to the Region's Core Final Environmental Impact Statement. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

New York Times, The

1869 "Opening of the Newark and New-York Railroad." *New York Times*, July 24, 1869: 8.1877 "The New Bergen Tunnel: Formal Opening of the Work," New York Times, May 12, 1877.1909 "Under the Hudson by Four Tubes Now." New York Times, July 18, 1909.

Nogan, Better & Joseph Brooks

1980 National Register of Historic Places Nomination Form, Paulus Hook Historic District. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

O'Connor, G.W. 1949 Railroads of New York. Simons Boardman Publishing Corporation, New York, New York.

Parsons Brinkerhoff

1992 Hudson River Waterfront Transportation Alternatives Analysis/Draft Environmental Impact Statement & Report, Results Report: Cultural Resources and Ecology. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Payne, Alvin J.

2003 Alvin J. Payne, Deputy State Historic Preservation Officer to John M. Keller, New Jersey Turnpike Authority, February 20, 2003 (HPO Log # 03-0395-2). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Petrick, Barbara

1981 National Register of Historic Places Nomination, Jersey City High School, City of Jersey City, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Phillips Preiss Shapiro Associates, Inc. (PPSA)

2004 City of Hoboken Master Plan. Electronic document, http://www.hobokennj.org/, accessed May 29, 2016.

Public Archaeology Laboratory (PAL)

2010 Historic Architectural/Industrial Properties Overview and Identifiacation Survey, Linden, Bayonne, Jersey City, Hanover, and Mahwah, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Raber Associates

1986 Assessment of Cultural Resources in the Lincoln Harbor Development Site, Township of Weehawken and City of Hoboken, Hudson County, New Jersey.

RBA Group, Inc., The (RBA)

1999 Reconnaissance-/Intensive-Level Historic Architectural Survey, U.S. Route 1 & 9 Truck Improvements Project, City of Jersey City, Hudson County, NJ. Vol. 1. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2001 Cultural Resources Survey of the Jersey City Water Works Pipeline, 1851-1873, US Route 1 & 9 Truck Interim Improvements Project, Charlotte Circle, Jersey City, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2004 Portway – Phase I, Volume 2, Pennsylvania Avenue/Fish House Road Improvement Project, Town of Kearney, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2006 Jersey City Water Works, Inventory of Historic Maps and Plans on file with the City Municipal Utilities Authority Water Engineering Department. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2007 The Jersey City Water Works Historic District, Documentary Study and Historic Architectural Survey, Multiple Counties, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey. 2009 History of Transportation in the Hackensack Meadows, Vol. 3: A Survey of the Delaware, Lackawanna and Western Railroad Boonton Branch. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Richard Grubb & Associates, Inc. (RGA)

2002a Cultural Resources Survey, Route 7 Section 2 (Wittpenn Bridge) over Hackensack River, City of Jersey City and Kearny Town, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2002b Section 106 Consultation, AT&T Wireless Services, Inc. North Jersey City Site 885, 930 Newark Avenue, City of Jersey City, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2003 National Historic Preservation Act, Section 106, Sprint PCS, Hoboken, Site No. NY54XC080, 78 Jefferson Street, City of Hoboken, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2006a Stage IA Cultural Resources Survey, North Hudson Sewerage Authority, Collections System, Combined

Sewer Rehabilitation, Wood Sewers. City of Hoboken, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2006b Stage IA Cultural Resources Survey, Realignment of the Northwest Interceptor at Manhattan Avenue, Jersey City, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2007a NJ Route 7-Wittpenn Bridge over Hackensack River (NJDOT Structure No. 0909-150), City of Jersey City and Town of Kearny, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2007b Stage IA Cultural Resources Survey, Northwest Interceptor, Broadway Section, Realignment, City of Jersey City, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2008 Cultural Resources Investigation, Conrail Bergen Tunnel/Waldo Tunnel Improvements, National Docks Secondary Line, Conrail North Jersey Railroad Doublestack Clearance Project, City of Jersey

City, Hudson County, New Jersey, December 2008. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2009 Stage IA Cultural Resources Survey, North Hudson Sewerage Authority, H1 Screening and West Weather Pump Station, City of Hoboken, Hudson County, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2013 Intensive-Level Architectural Survey, Northeast Grid Reliability Project, Roseland to Marion 230kV Overhead Transmission Line, PSE&G Services Corporation, Essex, Passaic, Bergen, and Hudson Counties, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey. 2015 Supplemental Phase IA Archaeological Survey and Historic Architectural Resources Background Study (HARBS) and Effects Assessment, NJ TRANSIT Long Slip Fill Project, SSRRP Tier III Cultural Resources Consultant Support, Contract No. 13-002B City of Hoboken and City of Jersey City, Hudson County, New Jersey, HPO Project No. 14-3233. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Rivera, Ray

2012 Its Restaurants Empty and Its Trains Stalled, Hoboken Encounters Storm's Increasing Toll. New York Times, 12/16/2012.

Sanborn Map Company

1912 Insurance Maps of Hudson County, New Jersey, Volume 6. Sanborn Map Company, New York, New York. 1927 Insurance Maps of Hudson County, New Jersey: Jersey City. Sanborn Map Company, New York, New York.

Saunders, Daniel

2008 Daniel Saunders, Deputy Historic Preservation Officer to Jeremy Colangelo-Bryan, Capital Planning, NJ Transit, September 18, 2008 (HPO I2008-162 PROD Log # 05-0759-17, 18, 20, 21, 22, 23 & 24). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2015a Daniel Saunders, Deputy Historic Preservation Officer to David C. Mudge, New Jersey Department of Transportation, January 30, 2015 (HPO-A2015-182 Log # 13-0319-2). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2015b Daniel Saunders, Deputy Historic Preservation Officer to David Valenstein, Environmental and System Planning Division, Federal Railroad Administration, March 23, 2015 (HPO C2015-093 PROD Log # 15-1578-1&2). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2015c Daniel Saunders, Deputy Historic Preservation Officer to Dara Callender, Supervising Compliance Specialist, NJ Transit, January 14, 2015 (HPO A2015-057 PROD Log # 14-1846-4&5). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Scull, Theodore

1987 Hoboken's Lackawanna Terminal. New York: Quadrant Press.

Sheehan, Margaret A.

1977 National Register of Historic Places Nomination Form, Van Vorst Park Historic District. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Snyder, John P.

1969 The Story of New Jersey's Civil Boundaries: 1606-1968. Bulletin 67, Bureau of Geology and Topography, Trenton, New Jersey.

Spielmann and Brush 1880 Sanitary and Topographical Map of Hudson County. Spielmann and Brush, Hoboken, New Jersey.

Sullebarger Associates

1991 New Jersey Transit, Hudson River Waterfront AA/DEIS, Historic Architectural Resources Background Study. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Taber, Thomas Townsend

1977 The Delaware, Lackawanna & Western Railroad in the Nineteenth Century, 1828-1899. Thomas Townsend Taber, Muncy, Pennsylvania.

Taber, Thomas Townsend, and Thomas Townsend Taber, III

1980 The Delaware, Lackawanna & Western Railroad in the Twentieth Century, 1899-1960, Vol 1. Thomas Townsend Taber, III, Muncy, Pennsylvania.

1981 The Delaware, Lackawanna & Western Railroad in the Twentieth Century, 1899-1960, Vol 1. Thomas Townsend Taber, III, Muncy, Pennsylvania.

TAMS Consultants, Inc.

1991 Routes U.S. 1 & 9 Corridor, Historic Engineering Survey, Historical Narrative & Assessment of Significance. On file, New Jersey Historic Preservation Office, Trenton, New Jersey. 1993 Hoboken Terminal, Core Passenger Facilities Improvement Project, Hoboken, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Transit Link Consultants

2006 Access to the Region's Core, Draft Environmental Impact Statement, Historic Architectural Resources Background Study and Effects Assessment, Volume I. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2008 Access to the Region's Core, Draft Environmental Impact Statement, Historic Architectural Resources Background Study and Effects Assessment. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Tranter, Robert

2002 Robert Tratner, Regional Environmental Officer, FEMA to Dorothy Guzzo, Deputy Historic Preservation Officer, February 27, 2002. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

2003 Robert Tratner, Regional Environmental Officer, FEMA to Dorothy Guzzo, Deputy Historic Preservation Officer, February 21, 2003. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Treese, Lorett

2006 Railroads of New Jersey: Fragments of the Past in the Garden State Landscape. Mechanicsburg, Pa.: Stackpole Books.

Trust Company of New Jersey 1921 *Hudson County New Jersey and the Old Village of Bergen.* Orr Press, New York, New York. United States Coast and Geodetic Survey 1837 Topographic Survey of the New Jersey Coast, Sheet T-17. United States Coast and Geodetic Survey, Washington, DC.

United States Geological Survey (U.S.G.S.) 1967 7.5' Quadrangle: Jersey City, NJ-NY [photorevised 1981] 1995 7.5' Quadrangle: Weehawken, NJ-NY

URS Greiner, Inc. 1997 Bulkhead and Waterfront Walkway Department of Military and Veterans Affairs Site, Jersey City, New Jersey. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Van Winkle, Daniel 1924 History of the Municipalities of Hudson County, New Jersey, 1630-1923. Lewis Historical Publishing Company, New York, New York. Wacker, Peter O.

1975 Land and People: A Cultural Geography of Pre-Industrial New Jersey: Origins and Settlement Patterns. Rutgers University Press, New Brunswick, New Jersey.

Wilkins, Mira 2004 The History of Foreign Investment in the United States, 1914-1945. Harvard University Press, Cambridge, Massachusetts.

Wilson, Betty

1980 Betty Wilson, Deputy Historic Preservation Officer to John Corrigan, Regional Director Economic Development Administration, June 12, 1980. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Winfield, Charles H.

1872 History of the Land Titles in Hudson County, N.J., 1609-1871. Wynkoop & Hallenbeck Printers, New York, New York.

1874 History of the County of Hudson. Kennard & Hay Stationary Manufacturing and Printing Company. New York.

Wood, William H. 1855 Map of Jersey City, Hoboken & Hudson Cities. R. B. Kashow, Jersey City, New Jersey.

BIBLIOGRAPHY

(excerpt from Supplemental Information for the Phase 1A Archaeological Survey (Phase 1A) for the NJ TRANSITGRID TRACTION POWER SYSTEM. December 2017. Prepared by Richard Grubb and Associates, Inc.)

Audin, Michael and Scott Warnasch

- 2015 Phase IB Archaeological Survey for Proposed Stormwater Retention Park, Lots 1-7, 9, 12-18, 57. Harrison Street, Hoboken, Hudson County, New Jersey. Report on file with NJDEP.
- 2016 Archaeological Monitoring Report During Excavation for Proposed Stormwater Retention Park, Lots 1-7, 9, 12-18, 57. Harrison Street, Hoboken, Hudson County, New Jersey. Prepared for NJDEP, Trenton

NJ.

Brydon

1974 The Passaic River: Past, Present, and Future. Rutgers University Press, New Brunswick, New Jersey.

- Dewberry Engineers, Inc.
- 2011 Phase IA Technical Environmental Study, New Jersey Turnpike Authority Preliminary Engineering & Environmental Studies for Improvements at Interchange 14A, City of Bayonne and City of Jersey City, Hudson County, New Jersey. On file, State Historic Preservation Office, Trenton, New Jersey.
- 2013 Phase IB Archaeological Investigation, Technical Environmental Study, New Jersey Turnpike Authority OPS No. T3371, Final Design for Improvements at Interchange 14A, City of Bayonne and City of Jersey City, Hudson County, New Jersey. On file, Historic Preservation Office, Trenton, New Jersey. The Foundry

1900 Among the Foundries, *The Foundry* 16 (96): 260.

Geismar, Joan H.

- 1995a Bayonne Extension Archaeological Study for the Hudson-Bergen Light Rail System, Technical Report (IA Assessment). On file, Historic Preservation Office, Trenton, New Jersey.
- 1995b Jersey City to the Vince Lombardi Park-Ride, Archaeology Study for the Hudson-Bergen Light Rail System, Technical Report (IA Assessment). On file, Historic Preservation Office, Trenton, New Jersey.
- 1995c Bayonne Extension to the Vince Lombardi Park-Ride, Archaeological Testing for the Hudson-Bergen Light Rail System, Technical Report (IB Assessment). On file, Historic Preservation Office, Trenton, New Jersey.
- 1998a 1A Background Research, Hoboken West Side Alignment, Hudson-Bergen Light Rail Transit System (HBLRTS), Jersey City Hoboken, Hudson County, New Jersey. On file, State Historic Preservation Office, Trenton, New Jersey.
- 1998b IA Documentary Study of Proposed New Boulevard and Long Slip Alignments, Hudson Bergen Light Rail Transit System (HBLRTS), Jersey City-Hoboken, Hudson County, New Jersey. On file, Historic Preservation Office, Trenton, New Jersey.
- 2002a A Compendium of Evaluations of MOA Archaeological Items for the Hudson Bergen Light Rail (HBLR) Project, MOS-1 Segment, for the Jersey City-Bayonne City Line to Paulus Hook, Jersey City, Hudson County, New Jersey. On file, Historic Preservation Office, Trenton, New Jersey.
- 2004a Fulton's Landing, 149 Essex Street (Block 130 Lot 89B), Jersey City, Hudson County, New Jersey. On file, Historic Preservation Office, Trenton, New Jersey.
- 2004b HBLR MOS-1 Long Slip, Jersey City-Hoboken, Hudson County, New Jersey, Field Testing and Data Recovery Report. On file, Historic Preservation Office, Trenton, New Jersey.
- 2004c HBLR MOS-2 Memo Report: Outfall 5, Weehawken Township, Hudson County, New Jersey, Archaeological Monitoring Report. On file, Historic Preservation Office, Trenton, New Jersey.
- 2006a HBLR MOS-2 Jersey City Viaduct, Phase IB Technical Report. On file, Historic Preservation Office, Trenton, New Jersey.
- 2006b HBLR MOS-2 Tonnelle Avenue (Smith House), Phase IB Technical Report. On file, Historic Preservation Office, Trenton, New Jersey.4-2

Gordon, Thomas F.

- 1833 *A Map of the State of New Jersey with Parts of the Adjoining States.* T. Gordon Publisher, Trenton, New Jersey. Hassler, F.R.
- 1844 Map of New-York Bay and Harbor and the Environs. Survey of the Coast of the United States, Washington, D.C.

Historic Sites Research

- 1980a Hudson River Route Feasibility and Locational Study Environmental Impact Statement Technical Report No. 8, Cultural Resources, Revised. On file, Historic Preservation Office, Trenton, New Jersey.
- 1980b Hudson River Route Feasibility and Locational Study Environmental Impact Statement Technical Report No. 8, Cultural Resources, Volume II, Appendeices. On file, Historic Preservation Office, Trenton, New Jersey.

Hopkins, G.M.

1909 Atlas of Hudson County, New Jersey, Volume 2. G.M. Hopkins & Co., Philadelphia, Pennsylvania.

1934 Atlas of Hudson County, New Jersey, Volume 2. G.M. Hopkins & Co., Philadelphia, Pennsylvania.

Hunter Research, Inc.

- 1991 Archaeological Resources Technical Backup Report, NJ Transit Hudson River Waterfront, Transportation Project. On file, Historic Preservation Office, Trenton, New Jersey.
- 2009 Historic Context Development, the Hackensack Meadowlands, Hackensack Meadowlands Restoration Project, Hudson and Bergen Counties, New Jersey. On file, State Historic Preservation Office, Trenton, New Jersey.

Kardas, Susan and Edward Larrabee

- 1979 Hudson River Route Feasibility and Locational Study Environmental Impact Statement, Technical No. 8, Cultural Resources. On file, Historic Preservation Office, Trenton, New Jersey.
- 1980 Hudson River Route Feasibility and Locational Study Environmental Impact Statement, Technical No. 8, Cultural Resources. Report on file, State Historic Preservation Office, Trenton, New Jersey.
- Langan Engineering and Environmental Services, Inc.
- 2012 Archaeological Monitoring Report During Construction of the Slurry Wall for the Standard Chlorine Chemical Company Site, Interim Response Action Workplan, Town of Kearny, Hudson County, New Jersey. On file, State Historic Preservation Office, Trenton, New Jersey.
- 2012 Archaeological Monitoring Report During Construction of the Slurry Wall for the Standard Chlorine Chemical Company Site, Interim Response Action Workplan, Town of Kearny, Hudson County, New Jersey. On file, State Historic Preservation Office, Trenton, New Jersey.

Louis Berger and Associates

1992 Historic and Archaeological Investigations: Gateway Transit Hub, Jersey City, New Jersey. Prepared for New Jersey Transit Corporation. Report on file, State Historic Preservation Office, Trenton, New Jersey.

Marshall, Stephen

2004 The Meadowlands before the Commission: Three Centuries of Human Use and Alteration of the Newark and Hackensack Meadows. *Urban Habitats* 2(1):4-27. Electronic Document, <u>www.urbanhabitats.org</u>, accessed March 1, 2012.

Nationwide Environmental Title Research (NETR)

1947 USGS Jersey City Quadrangle. Accessed September 1, 2017, HistoricAerials.com.

1953 Historic Aerial Photographs. Electronic Document, http://www.historicaerials.com/, accessed March 18, 2016.4-3

1954 Historic Aerials, Jersey City vicinity. Electronic document, http://www.historicaerials.com/, accessed March 18, 2016.

1958 USGS Jersey City Quadrangle. Accessed September 1, 2017, HistoricAerials.com.

- 1966 Historic Aerials, Jersey City vicinity. Electronic document, http://www.historicaerials.com/, accessed March 18, 2016.
- 1979 Historic Aerials, Jersey City vicinity. Electronic document, http://www.historicaerials.com/, accessed March 18, 2016.
- 1997 Historic Aerials, Jersey City vicinity. Electronic document, http://www.historicaerials.com/, accessed December 11, 2017.
- 2002 Historic Aerials, Jersey City vicinity. Electronic document, http://www.historicaerials.com/, accessed December 11, 2017.
- New Jersey Department of Environmental Protection (NJDEP)
- 1930 Aerial Photograph, Hudson County, New Jersey. NJ GeoWeb, New Jersey Department of Environmental Protection, Trenton, New Jersey. http://njwebmap.state.nj.us/NJGeoWeb/WebPages/Map/MapViewer.aspx. Accessed March 18, 2016.
- Public Archaeology Laboratory, Inc. [PAL]
- 2010 Archaeological Overview survey, Texas Eastern Transmission, LP, New Jersey-New York Expansion Project, Linden, Bayonne, Jersey City, Hanover, and Mahwah, New Jersey. On file, Historic Preservation Office, Trenton, New Jersey.
- 2011a Results of Geoarchaeological Soil Borings and Proposed Phase IB Archaeological Surveys, New Jersey-New York Expansion Project, Staten Island, New York and Linden, Bayonne, and Jersey City, New Jersey. On file, Historic Preservation Office, Trenton, New Jersey.
- 2011b Archaeological Overview Survey-Addendum #1 to Technical Report, New Jersey-New York Expansion Project, Jersey City, New Jersey. On file, Historic Preservation Office, Trenton, New Jersey.
- 2011c Archaeological Overview Survey, Addendum #2 to Technical Report, New Jersey-New York Expansion Project, Bayonne and Jersey City, New Jersey. On file, Historic Preservation Office, Trenton, New Jersey.
- 2011d Archaeological Overview Survey-Addendum #3 to Technical Report, New Jersey-New York Expansion Project, Linden, Bayonne and Jersey City, New Jersey. On file, Historic Preservation Office, Trenton, New Jersey.
- 2011e Results of Geoarchaeological Soil Borings and Proposed Phase IB Archaeological Surveys, Report # 2, New Jersey-New York Expansion Project, Bayonne and Jersey City, New Jersey. On file, Historic Preservation Office, Trenton, New Jersey.
- 2011f Technical Report, Results of Geoarchaeological Borings and Phase IB Archaeological Identification Survey, Tract Nos. HUD-66: New Jersey DEP; HUD-75, HUD-76, and HUD-79: New Jersey Transit; and HUD 70.1, HUD-75H, HUD-80H: New Jersey Turnpike Authority, New Jersey-New York Expansion Project, Jersey City, Hudson County, New Jersey. On file, Historic Preservation Office, Trenton, New Jersey.
- 2012 Results of Geoarchaeological Soil Borings, Report #10, New Jersey-New York Expansion Project, Jersey City Impound, Jersey City Sewerage Authority, Jersey City Humane Society, and Wilson Street, Jersey City, New Jersey. On file, Historic Preservation Office, Trenton, New Jersey.
- 2014a Archaeological Investigations, Pipeline Route in Wilson Street (STA 828+50 to STA 832+50), Central Railroad of New Jersey Roundhouse Site, New Jersey-New York Expansion Project, Jersey City, Hudson County, New Jersey. On file, Historic Preservation Office, Trenton, New Jersey.
- 2014b Technical Report, Archaeological Investigations, Pipeline Route in Wilson Street (STA 828+50) Central Railroad of New Jersey Roundhouse Site, New Jersey-New York Expansion Project, Jersey City, Hudson County, New Jersey. On file, Historic Preservation Office, Trenton, New Jersey.

Raber Associates

1986 Assessment of Cultural Resources in the Lincoln Harbor Development Site, Township of Weehawken and City of Hoboken, Hudson County, New Jersey. On file, Historic Preservation Office, Trenton, New Jersey.4-4 1988 Supplementary Assessment of Cultural Resources in the Lincoln Harbor Development Site, Township of Weehawken, Hudson County, New Jersey. On file, Historic Preservation Office, Trenton, New Jersey.

- 2000 Phase I/II U.S. Route 1 & 9 Truck Improvement Project, City of Jersey City, Hudson County, New Jersey. On file, State Historic Preservation Office, Trenton, New Jersey.
- 2015 U.S. Cultural Resource Survey, Route 1&9 Truck Extension/New Road [St. Paul's Avenue to Secaucus Road] Project, Jersey City, Hudson County, NJ. Prepared for the New Jersey Department of Transportation. On file, State Historic Preservation Office, Trenton, New Jersey.

Richard Grubb & Associates, Inc.

2001b Stage I Cultural Resources Investigation and Geoarchaeological Investigation for Central Wastewater Treatment Plant Upgrade, North Bergen Township, Hudson County, New Jersey.

RGA, Inc.

- 2017a Phase IA Archaeological Survey, NJ TRANSITGRID Traction Power System, Town of Kearny, Cities of Jersey City, Hoboken, Bayonne, and Union, and Townships of North Bergen and Weehawken, Hudson County, New Jersey. On file, Historic Preservation Office, Trenton, New Jersey.
- 2017b Historic Architectural Resources Background Survey (HARBS) and Effects Assessment (EA) Report. NJ TRANSITGRID Traction Power System, City of Bayonne, Town of Kearny, City of Jersey City, City of Hoboken, Township of Weehawken, City of Union City, and Township of North Bergen, Hudson County, New Jersey.

Sanborn Fire Insurance Company

- 1885 Hudson County Sanborn Fire Insurance Maps, Hudson County, 1885-1900, Volume I, Sheet 29 and Volume 2, Sheet 34 and 35. Sanborn Map Company, New York, New York.
- 1896 Hudson County Sanborn Fire Insurance Maps, Hudson County, 1885-1900, Volume 6, Sheet 120. Sanborn Map Company, New York, New York.
- 1911 Hudson County Sanborn Fire Insurance Maps, Hudson County, 1906-1912, Volume 6, Sheet 61. Sanborn Map Company, New York, New York.
- 1951 Hudson County Sanborn Fire Insurance Maps, Hudson County, 1906-Apr1951, Volume 6, Sheet 61. Sanborn Map Company, New York, New York.
- Skinner, Alanson, and Max Schrabisch
- 1913 A Preliminary Report of the Archaeological Survey of the State of New Jersey. Geological Survey of New Jersey Bulletin No. 9. Trenton, New Jersey.
- Spielmann and Brush
- 1880 Sanitary and Topographical Map of Hudson County, New Jersey. Prepared for the National Board of Health, Washington, D.C. Spielmann and Brush, Hoboken, New Jersey.

Spier, Leslie

1913 Results of an Archaeological Survey of the State of New Jersey. *American Anthropologist* 15(4): 675-679. Snyder, John P.

1969 The Story of New Jersey's Civil Boundaries, 1606-1968. Bureau of Geology and Topography, Bulletin 67. Trenton, New Jersey.

Stiteler, John

2017 Geomorphological Analysis of Geotechnical Boring, NJ TRANSITGRID TRACTION POWER SYSTEM, Kearny Town, Hudson County, New Jersey. Copy on file at RGA, Inc., Cranbury, NJ. 4-5

RBA Group, Inc.

Trans-Hudson Express (THE) Partnership

- 2009a Documentary Analysis Report: Hoboken Fan Plant/Construction Access Shaft Site, C8 Palisades Tunnels, City of Hoboken, Hudson County, New Jersey. On file at the State Historic Preservation Office, Trenton, New Jersey.
- 2009b Documentary Analysis Report, C10 Hudson River Tunnels. Prepared for New Jersey Transit August 7, 2009. On file at the New Jersey State Historic Preservation Office, Trenton, NJ.
- United States Coast Survey
- 1837a Topographic Survey of the New Jersey Coast, Sheet T-17. United States Coast and Geodetic Survey, Washington, DC.
- 1837b Topographic Survey of the New Jersey Coast, Sheet T-18. United States Coast and Geodetic Survey, Washington, DC.
- United States Geological Survey (U.S.G.S.)
- 1891 15' Topographic Map, Staten Island, NY.

Walling, H.F.

1860 Map of the City of New York and its Environs. S.D. Tilden, New York, New York.

Winfield, Charles H.

1874 History of the County of Hudson. Kennard & Hay Stationary Manufacturing and Printing Company. New York