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September 23, 2015

VIA HAND DELIVERY AND E-MAIL

Lt. Col. Matthew Luzzatto
Commander and District Engineer,
Charleston District, U.S. Army Corps of Engineers
69-A Hagood Avenue
Charleston, SC 29403

Re: P/N #SAC-2003-13026 – Union Pier Cruise Terminal

Lt. Col. Luzzatto:

On behalf of the Preservation Society of Charleston and the South Carolina Coastal Conservation League, the Southern Environmental Law Center (“SELC”) submits these comments regarding the requested permit authorizing the South Carolina State Ports Authority (“SPA”) to construct a new cruise ship passenger terminal on the north end of Union Pier Terminal, as described in the Public Notice issued by the Corps on July 23, 2015.

SPA proposes to construct a 20-acre terminal to home-base very large cruise vessels in one of the most densely populated and heavily visited areas of South Carolina. As you know, the surrounding Charleston neighborhoods and district are recognized internationally, and protected federally, as one of the single most significant historic assets in the entire United States.

SPA’s decision to propose a new leisure cruise operation at this location has generated tremendous public opposition and controversy. SPA’s decision also presents exceptional challenges to the Corps, since any new industrial-scale operation adjacent to highly populated, federally-protected historic neighborhoods triggers a host of legal requirements that the Corps must follow. The Corps’ job is made more challenging still by the fact that, in September 2013, the United States District Court for the District of South Carolina vacated an earlier Corps-issued authorization for this project, finding that the decision to issue a “maintenance” nationwide permit authorization with no public notice was legally void, and directing in very strong terms that the Corps undertake a more thorough and expansive evaluation of this project commensurate with the National Environmental Policy Act (“NEPA”), 42 U.S.C. § 4321 *et seq.*, and the National Historic Preservation Act, 54 U.S.C. § 300101, *et seq.* See *Preservation Society of Charleston v. U.S. Army Corps of Eng’n’s*, No. CIV.A. 2:12-2942-RMG, 2013 WL 6488282 at *16 (D.S.C. Sept. 18, 2013) (declaring the prior attempt to avoid review of the proposed terminal’s environmental and historic impacts as “unlawful and void”).

The Corps task was recently made more challenging still by SPA’s submittal in response to the Corps’ request for information concerning the proposed terminal project. The Corps sought this information as necessary for its evaluation of an individual permit for the propose

project. In response, SPA submitted discs containing over 40,000 pages of documents. The submittal consists of disorganized, repetitive, conflicting, and much irrelevant material, virtually none of which is new or specifically responsive to the Corps' request. One business day before public comments were due, the Corps extended the comment period another 30 days. In the intervening time, the Southern Environmental Law Center was able to publicly post the documents, but the reality is that very few citizens have had the time to review this disorganized heap.

SELC has completed its review of the documents and appreciates the opportunity to submit these comments to aid the Corps in its review of SPA's request for an individual permit. Our review shows that SPA has done very little to assist the Corps' fact-finding in the years since the U.S. District Court order. Indeed, the 40,000 pages submitted to the Corps appears to consist largely of old email communications, contractual documents, random newspaper items and correspondence, and plans regarding SPA's public relations strategy relating to this controversial terminal. The files shows that SPA has worked closely with Carnival Cruise Lines to – in SPA's words – “put[] the hammer down” on citizens who have proposed options for reducing impacts from cruise operations in Charleston. But the documents fail to show substantive engagement by SPA in evaluating information showing that shoreside power, for example, is a feasible option for reducing air pollution from hoteling ships in Charleston. Indeed, contrary to SPA's public statements that shoreside power is a non-starter, its internal documents show that other cruise terminals in the U.S. favor the use of shoreside power and that shoreside power will be less expensive than SPA has stated. The documents also show that SPA's public reasons for dismissing other terminal options (e.g., that cruise ships need to dock starboard-to) are not correct (Carnival Cruise Lines requested the ability to dock port-to).

If these 40,000 pages show anything, it is that a project of this magnitude, and at this location, will have a significant impact on the human environment. Thus, the Corps is required by law to prepare an Environmental Impact Statement (“EIS”) pursuant to NEPA that fully explores the project's impacts and all options for minimizing those impacts or avoiding them altogether. This letter discusses those impacts and alternatives for reducing them, as relevant to the Corps' NEPA review and its review pursuant to Corps regulations applicable to Section 10 permits. We also offer comments on the forthcoming NHPA Section 106 consultation process. Finally, we request that the Corps hold a public hearing regarding this application.

BACKGROUND

A. Procedural Summary

This is the second time SPA has sought federal authorization to build its proposed new cruise terminal in downtown Charleston. The first time, SPA received authorization to build its new terminal as a “maintenance” project pursuant to Nationwide Permit 3 (“NWP 3”), on April 2, 2012. The Corps did not provide the public notice of that decision to authorize the terminal as maintenance under NWP 3; SELC found out about the authorization on May 15, 2012 through a FOIA request. On May 16 of that year, we wrote the Corps and formally requested that the agency reconsider and withdraw that authorization because SPA's \$35 million cruise terminal project is not “maintenance” under NWP 3—specifically, because the plan was engineered to

change the use of Building 322 from an abandoned warehouse to a state-of-the-art passenger terminal. The May 16 letter also requested that the Corps start Section 106 procedures by May 31, 2012. After the Corps refused to withdraw or modify its decision or start Section 106 consultation, we filed suit in the United States District Court for the District of South Carolina on July 2, 2012. On September 18, 2013, the court issued an order vacating the NWP 3 authorization. *Preservation Society of Charleston v. U.S. Army Corps of Eng'n's*, No. CIV.A. 2:12-2942-RMG, 2013 WL 6488282 at *16 (D.S.C. Sept. 18, 2013).

The court found that “[r]ecord evidence provided by the Ports Authority supports the claim of Plaintiffs that the number of cruise ships and passengers has increased in recent years, and the proposed new and larger passenger terminal would likely significantly increase the number and size of cruise ships visiting Charleston and the volume of cruise passengers in the historic Charleston waterfront.” *Preservation Society*, 2013 WL 6488282 at *6. Further, the court found that “the Ports Authority data indicate a likely significant increase in the number of cruise passengers in the newly designed passenger terminal” of “more than triple the number of passengers in 2010.” *Id.* at *7. The court faulted the Corps for trying to “justify what amounted to essentially a non-review of the proposed passenger terminal on the basis that its jurisdiction is limited to the portion of the project physically touching the navigable waters of the United States,” and concluded that the Corps had “unreasonably and unlawfully, constricted [its] ‘scope of analysis’ . . . [b]y omitting more than 99% of the project”—specifically, continued cruise ship operations—and had “dramatically and improperly constricted the assessment of the potential environmental and historic landmark impacts of the proposed activity.” *Id.* at *11, *12, *15. The court also took issue with the Corps’ failure to engage in Section 106 review under the National Historic Preservation Act, and for failing to “afford the Advisory Council on Historic Preservation a reasonable opportunity to comment regarding the proposed project.” *Id.* at *10 (internal edits omitted). Finally, the court noted that the Corps has previously permitted Building 322 “as a transit shed” and not a “modern state-of-the-art \$35–million cruise ship passenger terminal,” making SPA’s proposed terminal clearly ineligible for authorization under Nationwide Permit 3. *Id.* at *1, *13. The court vacated the authorization and ordered that “the agency must undertake an appropriate NEPA and NHPA review” and decide whether to prepare and EIS, undergo Section 106 review, and whether to grant SPA an individual permit. *Id.* at *16.

The Corps and the Department of Justice did not appeal that decision, and the Corps should pay careful attention to the court’s findings on these facts during this permitting process.

B. Applicable Federal Law

SPA proposes to build its cruise terminal on the banks of the Cooper River, a federally maintained navigable commercial waterway subject to the permitting jurisdiction of both the Corps and the South Carolina Department of Health and Environmental Control’s (“DHEC”) Office of Ocean and Coastal Resource Management (“OCRM”). Because SPA’s proposed terminal would be built over a navigable waterway and require driving pilings into the marl of the Cooper River, SPA must receive a permit prior to construction from the Corps pursuant Section 10 of the Rivers and Harbors Act of 1899. *See* 33 U.S.C. § 403.

On August 12, 2014, the Corps notified SPA via letter that the Corps would consider issuing an individual permit for the proposed cruise terminal rather than a nationwide authorization. NEPA requires environmental review of any “federal action significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(c). “Federal action” includes any non-federal project that “cannot ‘begin or continue without prior approval of a federal agency.’” *Md. Cons. Council, Inc. v. Gilchrist*, 808 F.2d 1039, 1042 (4th Cir. 1986) (quoting *Biderman v. Morton*, 497 F.2d 1141, 1147 (2d Cir. 1974)); see also *Sierra Club v. US Dep’t of Agric.*, 777 F. Supp. 2d 44, 58 (D.D.C. 2011). Because SPA’s cruise terminal project cannot proceed without a Corps permit and occurs in, over, and adjacent to waters of the United States as well as a federal navigation channel, this project triggers NEPA review. Three tiers of NEPA review are available: (1) a full EIS, (2) an environmental assessment (“EA”), and (3) activities that are categorically excluded from NEPA review. No categorical exclusion applies here. As explained in our December 31, 2014 letter to Lt. Colonel Litz, incorporated here by reference, the significant environmental and historical impacts of SPA’s proposed cruise terminal—as noted by the federal court’s decision and discussed further in this letter—are such that NEPA requires the Corps to prepare an EIS for this permit.

Both NEPA and the NHPA require the Corps to consider effects on historic property when deciding whether to prepare an EIS. Applicable regulations require that the Corps consider – independent from and in addition to environmental impacts – “[t]he degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources,” 40 C.F.R. § 1508.27(8), such that the “determination of whether an undertaking is a ‘major Federal action significantly affecting the quality of the human environment,’ and therefore requires preparation of an environmental impact statement (EIS) under NEPA, should include consideration of the undertaking’s likely effects on historic properties,” 36 C.F.R. § 800.8(a)(1) (emphasis added). See also 42 U.S.C. § 4331 (b)(4) (NEPA process enacted to help “preserve important historic, cultural and natural aspects of our national heritage”); *N. Idaho Cmty. Action Network v. U.S. Dep’t of Transp.*, 545 F.3d 1147, 1157 (9th Cir. 2008) (approving EIS that included a “broad overview ... of the Project’s impacts on historic properties, coupled with the specific, detailed analysis of the impacts . . . and mitigation measures to minimize those impacts”). As the Public Notice for this project acknowledges, SPA’s proposed terminal will affect many buildings listed or eligible for listing on the National Register, as well as National Landmarks, the Charleston Historic District, and other protected historic resources.

NHPA independently requires the Corps to assess any and all potential impacts on historic resources through a comprehensive and public consultation process called Section 106 consultation. 54 U.S.C. § 306108. Applicable regulations require the Corps to look “outside the permit area” in determining the “area of potential effects” a proposed activity will have on historic resources. 33 C.F.R. § 325, Appendix C; 36 C.F.R. § 800.16(d). The regulations also instruct the Corps to coordinate its reviews under NEPA and Section 106, see 36 C.F.R. § 800.8, 40 C.F.R. § 1502.25(a), and, where adverse effects on historic properties are present, develop measures as part of the NEPA process “to avoid, minimize, or mitigate such effects,” 36 C.F.R. § 800.8(c)(4). As discussed in more detail below, SPA’s proposed project has the potential to cause significant and wide ranging impacts on historic properties in Charleston such that the

Corps must engage in a robust and public Section 106 consultation process as part of its NEPA responsibilities.

Finally, the Corps regulations underscore the need to include the considerations of NEPA and NHPA in the Section 10 permitting process. Those regulations require the Corps to engage in “public interest review” that is “based on an evaluation of the probable impacts, including cumulative impacts” to “aesthetics, general environmental concerns, wetlands, *historic properties* . . . land use . . . water quality . . . considerations of property ownership and, in general, the needs and welfare of the people.” 33 C.F.R. § 320.4(a)(1) (emphasis added). The Corps must explicitly consider the “need for the proposed structure or work,” the “practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work,” and all “detrimental effects which the proposed structure or work is likely to have on the public and private uses to which the area is suited.” *Id.* at § 320.4(a)(2). Where a project will impact an area suited to historic preservation like the Charleston Historic District, the Corps’ regulations “require[] that due consideration be given to the effect which the proposed structure or activity may have on [historic] values,” and any Corps action “should, insofar as possible, be consistent with, and avoid significant adverse effects on” historic properties. *Id.* at § 320.4(a)(2)(e).

C. Applicable State Law

Under Section 401 of the Clean Water Act, the Corps cannot issue this permit without first receiving a water quality certification, known as the 401 Certification, from DHEC’s Bureau of Water Pollution Control (“BWPC”) certifying that the proposed project will not result in the violation of state water quality standards. *See* 33 U.S.C. § 1341(a)(1); S.C. Code Reg. § 61-101 (South Carolina regulations implementing the 401 Certification requirement). Further, because SPA’s proposed terminal would be built in a “critical area” on South Carolina’s coast, SPA must receive two authorizations from DHEC’s OCRM: the Critical Area Permit and the Coastal Zone Consistency Certification. *See* S.C. Code Ann. § 48-39-10, *et seq.* (requiring a Critical Area Permit); S.C. Code Ann. Regs. 30-1 (DHEC’s critical area permitting regulations). In contrast to the Critical Area Permit, which is entirely a requirement of state law, the Coastal Zone Consistency Certification is a requirement of the federal Coastal Zone Management Act implemented by state legislation to ensure all state and federal permits within the coastal zone comply with the South Carolina Coastal Zone Management Plan. *See* 16 U.S.C. § 1455(b)(14), (15) (requiring state implementation); S.C. Code Ann. § 48-39-80(11) (requiring DHEC to “[d]evelop a system whereby the department shall have the authority to review all state and federal permit applications in the coastal zone, and to certify that these do not contravene the management plan.”). Thus, the state permitting process generates three authorizations: (1) a 401 Certification, issued by DHEC’s BWPC; and a (2) Critical Area Permit and (3) Coastal Zone Consistency Certification, both issued by DHEC’s OCRM.

Projects that require federal and state authorizations begin with a joint application to both DHEC and the Corps,¹ and the Corps and DHEC issue a Joint Public Notice. DHEC’s regulations require DHEC to issue all three certifications—the Critical Area Permit, the 401

¹ S.C. DHEC, “Water Quality Certification (401) Process Explained” (last accessed Sept. 21, 2015), <http://www.scdhec.gov/environment/WaterQuality/401Certification/CertificationProcessExplained/>.

Certification, and the Coastal Zone Consistency Certification—in the same document after a coordinated review process involving both OCRM and BWPC. Only after DHEC completes its review may the Corps complete its review and issue the federal permit. *See* 33 U.S.C. § 1341(a)(1).

D. Community Context

Charleston community groups have a history of working with SPA to forge solutions that enable the Port of Charleston be one of the nation's most competitive and ports while preserving public health, the environment and the viability of area transportation facilities. For example, the Coastal Conservation League worked with SPA to keep the deepening of Charleston Harbor to 52 feet on an accelerated track while ensuring that environmental resources were adequately protected. We commend the Corps for its work in preparing detailed studies of environmental impacts and alternatives for that project as the law requires. In a spirit of compromise lauded by the Governor, the League was pleased to join in a settlement that preserves many acres of valuable wetlands while also supporting the growth of maritime commerce to more efficient vessels facilitated by a deepened channel.

Along with the deepening, the League engaged with SPA to complete significant land side improvements that enhance cargo handling in Charleston and beyond. As the Corps knows, the League challenged the adequacy of the EIS conducted for the Navy Base Marine Cargo Terminal because that document did not consider alternatives to relying exclusively on truck movement of containers, such as rail and barge, which would avoid adding thousands more tractor trailers to Charleston's increasingly congested interstates. That case, like the litigation challenging the cruise terminal's authorization under NWP 3, was also brought in the U.S. District Court for the District of South Carolina. After the presiding federal judge in that matter indicated that he would consider enjoining construction of the Navy Base terminal based on the concerns raised by the League, the parties were able to reach settlement that required cleaner trucks on SPA's cargo terminals and facilitated a rail connection at the Navy Base Terminal. Charleston's rail volume has increased substantially since then, and SPA's Upstate intermodal inland port facility has proven a great success, all while taking thousands of polluting trucks off of the interstate.

The League, the Preservation Society, and the rest of the Charleston support port operations that are good for the people of South Carolina and for the people of Charleston. We are concerned that the cruise terminal as proposed imposes significant impacts on the Charleston community, while alternatives that would allow the port's cruise plans to proceed and avoid impacts to the community have been ignored.

SPA's drive for a new cruise terminal began in early 2009, when SPA's cruise business was struggling and the only cruise customer "regularly calling on Charleston," Norwegian Cruise Lines, announced that its ship was going elsewhere.² Despite "account[ing] for less than 1 percent of port business and . . . about 1 percent of Charleston's visitors each year," SPA's top executive at the time identified saving the threatened cruise business "among his top priorities,"

² Allyson Bird, *Cruise terminal could get a face-lift*, CHARLESTON POST & COURIER, Apr. 18, 2009, <http://www.postandcourier.com/article/20090418/PC05/304189930>.

saying it was “more fun” than cargo operations.³ A barrier to increased and ongoing cruise operations was SPA’s outdated cruise terminal. The existing terminal does not comply with federal security regulations: it is too small to house the security and screening procedures needed to process large, modern cruise ships under current port security protocols. SPA has thus been “operating under agreements with the government . . . that it will one day properly accommodate the elaborate screening process for all luggage, vehicles and passengers.”⁴ Further, the existing terminal was aesthetically and operationally deficient. In SPA’s words, the existing terminal is “desolate,” “undistinguished,” “out-of-date,” and “unattractive.”⁵ The “growing demands of the cruise industry”⁶ made operating in the existing terminal “exceptionally cumbersome,”⁷ forcing cruise operators to process passengers outside in tents because of a lack of space inside the terminal.⁸ These operational, security, and aesthetic concerns created an “urgent need to improve our passenger terminal facilities.”⁹

The proposed solution was “a better building, more space, ample parking and easy access” to attract a long term “agreement with one cruise line.”¹⁰ In April 2009, SPA announced its intent to redevelop the “inadequate” existing cruise terminal.¹¹ At the time, the top SPA official declared “[w]e’re not seeking to expand the facility. . . . We’re just seeking to have a viable facility, which we don’t now.”¹² In late September 2009, SPA announced that it had signed a contract with the Carnival Corporation to “home base” the Carnival *Fantasy* in Charleston, meaning that the ship would dock to load and unload supplies and passengers in the historic downtown “at least once every week.”¹³ On the heels of that announcement, SPA held a press conference in early October introducing the design team it had selected to redesign and redevelop the “rusty and outdated cruise facility” currently located on south end of Union Pier Terminal.¹⁴ The ultimate redevelopment plan proposed building a larger, new cruise terminal at

³ *Id.*

⁴ *Id.* Throughout this letter, we cite to documents submitted to the Corps by the Bates numbers referenced in SPA’s June 24, 2015 letter: *Compare* SCPA 007504 (SPA concluding that federal security procedures alone require 26,600 square feet for a 3500 passenger vessel) *and* SCPA 10744 (SPA stating that federal security requirements for a 3450 passenger vessel would require at least 28,000 square feet, and thus total building would need “to be on the order of 130,000 sq. ft.” with 110,000 square feet being the minimum) *with* SCPA 007484 (showing that the entire existing cruise terminal is only 30,215 square feet). *See also* SCPA 009321 (SPA “urgently” needs upgrades “to properly serve passengers and ships and to conform to post-9/11 security standards”); SCPA 009362-63 (SPA concluding that existing “facility must be updated to comply with the Maritime Transportation Security Act of 2002” and “requires immediate upgrades”); SCPA 009363 (SPA concluding that Charleston “very attractive destination for cruise ships from all over the world” and to “meet this demand, we need to modernize and update” facility to “meet security requirements and customer expectations”); SCPA 14045-46.

⁵ SCPA 009738, 009740.

⁶ SCPA 007254.

⁷ SCPA 006793.

⁸ SCPA 007124.

⁹ SCPA 009327.

¹⁰ Bird, *Cruise terminal could get a face-lift*, *supra* note 2.

¹¹ *Id.*

¹² *Id.*

¹³ Allyson Bird, *Updating to begin a cruise terminal*, CHARLESTON POST & COURIER, Oct. 5, 2009, <http://www.postandcourier.com/article/20091005/ARCHIVES/310059943>; *see also* Allyson Bird, *Charleston gets year-round cruise contract*, CHARLESTON POST & COURIER, Sept. 17, 2009, <http://www.postandcourier.com/article/20090917/PC05/309179984>.

¹⁴ Bird, *Updating to begin a cruise terminal*, *supra* note 13.

the northern end of Union Pier Terminal and redeveloping the southern end of the pier into mixed use residential and commercial buildings.¹⁵

SPA's plan to construct an expanded cruise terminal prompted concern and objections from the community.¹⁶ Community members identified three concerns with the new terminal and growing cruise business in Charleston. First, the very large, modern ships towered over Charleston's historic skyline, deteriorating Charleston's internationally renowned historic character. Second, air and water pollution from cruise ships is largely unregulated, and additional limits must be placed on any larger cruise ships given that those living near the existing cruise ship operations already fear for their health, home, and waterways that they use—for example, the surrounding neighborhoods have their homes covered in soot from the heavy diesel exhaust that cruise ships emit while in port. Third, building a larger terminal to host larger ships with more passengers would severely impact those who live and work in small, historic downtown Charleston and already experience gridlock traffic on the days that the oldest, smallest ships in Carnival's fleet dock in the city.

The community proposed three ways to limit these impacts while still growing the cruise business. First, to establish a reasonable and legally enforceable ceiling on the size and number of ships SPA will host in Charleston, limiting the cruise business' impact on Charleston. Second, install shore power so that cruise ships don't have to run their diesel engines while in port immediately adjacent to historic neighborhoods. Third, study other potential locations for the cruise terminal that would have less impact on historic Charleston and closely packed colonial neighborhoods.¹⁷

SPA purported to address these concerns with a "Voluntary Cruise Management Plan" (VCMP) that it presented to the City of Charleston in 2011. In the plan, SPA has promised to notify the City and local stakeholders one year in advance if SPA intends to host more than 104 ships in any year, host cruise ships larger than 3500 passengers, or host more than one ship at a

¹⁵ See Cooper, Robertson & Partners, SOUTH CAROLINA STATE PORTS AUTHORITY: CONCEPT PLAN FOR UNION PIER WATERFRONT (Sept. 2010), available at http://www.port-of-charleston.com/UnionPierPlan/pdf/Union_Pier_Concept_Plan_Report_FINAL.pdf.

¹⁶ David Slade, *City's cruise plan steam ahead*, CHARLESTON POST & COURIER, Sept. 15, 2010, <http://www.postandcourier.com/article/20100915/PC1602/309159934> ("increasing frequency of cruise ship visits has led to much controversy.").

¹⁷ Community members offered alternative sites as early as April 2009; for example, a city council member proposed moving the cruise terminal to Patriot's Point in Mount Pleasant, across the harbor, where the area is "faced with sinking warships and financial woes," and "could benefit from the added foot traffic and lucrative leasing that would come with cruises." See Allyson Bird, *Cruising into Mount Pleasant?*, CHARLESTON POST & COURIER, May 12, 2009, <http://www.postandcourier.com/apps/pbcs.dll/article?date=20090512&category=PC05&lopenr=305129901&Ref=AR>.

time. SPA has publicly rejected studying other terminal locations in detail,¹⁸ and has likewise publicly refused to consider shore power.¹⁹

The VCMP was received with skepticism because its limits on their face appear unenforceable and entirely discretionary. Indeed, in emails to Carnival (correspondence included in SPA's most recent application to the Corps), SPA stated that the voluntary plan does not control the growth of its cruise business: "As you'll recall," an SPA executive wrote to Carnival days after SPA agreed to the plan, "this [plan] does not limit or impact in any way the cruise business in Charleston. Rather, it speaks to the city's process to collect input should the Ports Authority decide" to host more or larger ships.²⁰

SPA took a different tack when addressing the public. It characterized citizens who advocated for meaningful limits on cruise impacts as "cruise opponents," who do not just "hate cruise and love the port," but "hate the very idea of us being a port, at least on the Charleston Peninsula but by extension to North Charleston, in general. It's like saying you love dogs but you do not ever plan to feed them because they might crap on the rug."²¹ Further, SPA stated that if anyone challenged its preferred plan, SPA would build a larger terminal at the site of the existing terminal and continue cargo operations on the north end of Union Pier—"a terrible outcome for all concerned in the city."²² Indeed, SPA went after citizens in the press, telling Carnival that it was "putting the hammer down."²³

Meanwhile, SPA's aggressive growth of the cruise business in Charleston prompted national cries for caution and realistic limits and standards. After a series of open letters by the President of the National Trust for Historic Preservation urging that, "[w]ithout reasonable limitations, [cruise ship] impacts threaten the very character of this historic place," the Trust listed Charleston as one of the most endangered historic places in America because of SPA's proposed cruise business.²⁴ The World Monuments Fund also listed Charleston on the 2012 World Monuments Watch in order to highlight impacts of "rapid, unregulated growth in cruise ship arrivals" on the city's historic resources.²⁵ The *Los Angeles Times* reported on Charleston's inclusion in the "list of the globe's most threatened cultural heritage sites" alongside "ancient

¹⁸ Warren L. Wise, *SPA board approves new cruise terminal plans*, CHARLESTON POST & COURIER, Apr. 21 2011, <http://www.postandcourier.com/article/20110421/PC05/304219913> ("The board noted in a resolution it passed that the Columbus Street Terminal is not a viable option for the cruise business because it's needed for cargo operations to support the port's growth.").

¹⁹ Robert Behre, *Cruise foes, port in power struggle: Shore-side electricity conflict raises pollution, cost issues*, CHARLESTON POST & COURIER, Sept. 12 2011, <http://www.postandcourier.com/article/20110912/PC1602/309129932>.

²⁰ SCPA 006999.

²¹ SCPA 024659.

²² Allyson Bird, *SPA vows to avoid fight over cruise ship project*, CHARLESTON POST & COURIER, Dec. 11 2010, <http://www.postandcourier.com/article/20101211/PC05/312119955>.

²³ SCPA 004606.

²⁴ National Trust for Historic Preservation, "11 Most Endangered Places" (last accessed Sept. 21, 2015), <http://www.preservationnation.org/issues/11-most-endangered/locations/watch-status-charleston-1.html?referrer=https://www.google.com/#.VcUVeflVhBc>.

²⁵ World Monuments Fund, "Charleston Historic District" (last accessed Sept. 21, 2015), <http://www.wmf.org/project/charleston-historic-district>.

geoglyphs in the desert of southern Peru” and the “floating fishing villages along Ha Long Bay in Vietnam.”²⁶

E. Project timeline

SPA filed its joint application with the Corps and DHEC on January 27, 2012. In that application, SPA explained that, without a new cruise terminal, SPA could not continue its cruise business: “the need for a new facility has become critical,” both because of “continued growth of the cruise business” and because passenger operations have only received “conditional approval” from U.S. Customs and Border Protection based on “the understanding that an improved facility would be needed for continued operations.”²⁷ SPA proposed “[r]elocating the passenger facility to Building #322,” an empty warehouse, requiring total “renovation of the building’s exterior and interior,” and construction of numerous additional structures and facilities to accommodate cruise operations.²⁸ (In contrast, SPA told DHEC that all work would occur “interior within the existing four walls and dimensions of the building.”²⁹) SPA’s application stated that the proposed terminals only impact to the environment and Charleston was “the installation of five pile clusters,” and that the proposed terminal will “reduce impacts to US waters” by avoiding destruction of wetlands would occur if SPA tried to update the existing terminal to meet security requirements and by reducing “the number of large vessels calling [on] Union Pier Terminal.”

In February 2012, the Corps promulgated a number of nationwide permits, including Nationwide Permit 3 that allows the Corps to authorize without environmental review or public notice and comment the “repair, rehabilitation, or replacement” of a “currently serviceable structure” previously permitted by the Corps, “provided that the structure . . . is not to be put to uses differing from those uses specified or contemplated for it in the original permit.”³⁰ In issuing Nationwide Permit 3, the Corps was clear that it “authorizes only activities that repair or return an activity to previously existing conditions.” 77 Fed. Reg. 10183, 10191 (2012). “Activities that result in more than minimal individual and cumulative adverse effects on the aquatic environment cannot be authorized by” Nationwide Permit 3.³¹ State regulations authorize DHEC to comply the Clean Water Act by issuing “general [401] certifications for categories of activities or for activities specified in Federal nationwide” permits. S.C. Code Reg.

²⁶ Tina Susman, *Charleston, S.C., lands on a list of endangered sites – again*, LOS ANGELES TIMES, Oct 7, 2011, <http://latimesblogs.latimes.com/nationnow/2011/10/preservation-group-puts-charleston-sc-on-list-of-endangered-sites.html>.

²⁷ The existing cruise terminal, Building 325, is physically incapable of meeting federal security standards without nearly doubling its size. See *supra* note 4 and accompanying text.

²⁸ See SCPA 005618 (identifying new ship stores building, parking apron, and other structures proposed outside the existing footprint of Building 322); SCPA 011702, 011726, 011735-36 (illustrating proposed terminal east facade with large new mezzanine for loading and unloading passengers); SCPA 011783, 012811-812, 011843, 11850, 11851, 011858.

²⁹ SCPA 009650 (SPA stating to DHEC that all work for the project will be “interior within the existing four walls and dimensions of the building”).

³⁰ U.S. Army Corps of Engineers, Decision Document, Nationwide Permit 3, (2012) available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_03_2012.pdf.

³¹ *Id.*

61-101(A)(3). On April 6, 2012 DHEC issued public notice of its intent to issue a general 401 Certification for the Corps nationwide permits, including Nationwide Permit 3.³²

On April 20, 2012 the Corps sent a letter to SPA stating that the Corps had provisionally authorized the proposed cruise terminal as a “maintenance” activity under Nationwide Permit 3. The authorization was only provisional because DHEC had not yet issued a 401 Certification for Nationwide Permit 3, and the Clean Water Act prohibits the Corps from authorizing any activity without a 401 Certification.³³ The Corps authorization of SPA’s terminal did not undergo public notice or comment, and the Corps did not review the environmental or historic impacts of the proposed terminal. On April 23, 2012, DHEC issued its final 401 Certification for the nationwide permits, and certified Nationwide Permit 3 without conditions, based on the assumption that the limits of the nationwide permits will ensure that authorized projects will not have a direct or cumulative impact on water quality.³⁴ DHEC’s review of the nationwide permits did not mention or review the proposed cruise terminal.³⁵ According to the Corps, issuance of South Carolina’s 401 Certification for the Nationwide Permits meant that SPA’s authorization under Nationwide Permit 3 became final.³⁶

On March 16, 2012, several community groups wrote to the Corps requesting that the Corps withdraw its authorization of the terminal under Nationwide Permit 3. The Corps declined. On August 2, 2012, the groups filed suit in federal court against the Corps, arguing that SPA’s proposed terminal was not a “maintenance” activity within Nationwide Permit 3 and that the Corps had violated several laws by not engaging in a thorough review of the proposed terminal’s impacts on the environment and historic character of Charleston. *See Preservation Society*, 2013 WL 6488282 at *5-10.

On December 18, 2012, DHEC issued a Critical Area Permit and Coastal Zone Consistency Certification for SPA’s proposed terminal. DHEC did not issue a separate 401 Certification because the project was proceeding under Nationwide Permit 3, and Nationwide Permit 3 had its own certification. Thus, DHEC wrote “n/a” in the decision document illustrating whether DHEC’s OCRM and BWPC had collaborated to include the 401 Certification as required by law.³⁷

On January 2, 2013, community groups began the internal DHEC process to appeal the state authorizations, arguing that DHEC had failed to review and limit the environmental and historic impacts of SPA’s proposed project as required by state law. Like the Corps, DHEC narrowly framed SPA’s project as minor “improvements” to an existing building in order to “facilitate” relocation of the cruise operations, having no environmental or historic impacts at all. The merits of the citizens challenge to DHEC’s approvals has never been reached. Instead, in

³² S.C. DHEC, Notice of Department Decision, 401 Water Quality Certification, Consistency with the S.C. Coastal Zone Management Program (April 6, 2012) (hereinafter “Nationwide Permit 401 Certification”), available at <http://www.scdhec.gov/Environment/docs/401nwwqcp12.pdf>.

³³ SCPA 005335 (Corps stating that original Nationwide Permit coverage is provisional pending the S.C. DHEC 401 Certification for Nationwide Permit 3).

³⁴ See S.C. DHEC, Nationwide Permit 401 Certification, *supra* note 32.

³⁵ *Id.*

³⁶ SCPA 005335.

³⁷ See *infra* note 84 and accompanying text.

early 2014, a state administrative law judge ruled that neighbors surrounding the proposed expanded terminal had no “standing” to seek any review at all – even though the federal found just the opposite with regards to the federal authorization for SPA’s terminal. That decision is now on appeal, with oral argument scheduled in early December and a decision likely in spring 2016, after which parties may seek Supreme Court review.

On September 18, 2013, the federal court found that the Corps’ authorization of SPA’s terminal under Nationwide Permit 3 was “unlawful and void.” *Preservation Society*, 2013 WL 6488282 at *16. The court found that “[r]ecord evidence provided by the Ports Authority supports the claim of Plaintiffs that the number of cruise ships and passengers has increased in recent years, and the proposed new and larger passenger terminal would likely significantly increase the number and size of cruise ships visiting Charleston and the volume of cruise passengers in the historic Charleston waterfront.” *Id.* at *6. Further, the court found that “the Ports Authority data indicate a likely significant increase in the number of cruise passengers in the newly designed passenger terminal” of “more than triple the number of passengers in 2010.” *Id.* at *7. The court faulted the Corps for trying to “justify what amounted to essentially a non-review of the proposed passenger terminal on the basis that its jurisdiction is limited to the portion of the project physically touching the navigable waters of the United States.” *Id.* at *12. The court concluded that the Corps had “unreasonably and unlawfully, constricted [its] ‘scope of analysis’ . . . [b]y omitting more than 99% of the project”—specifically, continued cruise ship operations—and had “dramatically and improperly constricted the assessment of the potential environmental and historic landmark impacts of the proposed activity.” *Id.* at *11, *15. Notably, the court took issue the Corps failure to engage in Section 106 review under the National Historic Preservation Act, and for failing to “afford the Advisory Council on Historic Preservation a reasonable opportunity to comment regarding the proposed project.” *Id.* at *10 (internal edits omitted). Finally, the court noted that the Corps has previously permitted Building 322 “as a transit shed” and not a “modern state-of-the-art \$35–million cruise ship passenger terminal,” making SPA’s proposed terminal clearly ineligible for authorization under Nationwide Permit 3. *Id.* at *1, *13. The court vacated the authorization and ordered that “the agency must undertake an appropriate NEPA and NHPA review” and decided whether to prepare and EIS, undergo Section 106 review, and grant SPA an individual permit. *Id.* at *16.

On August 12, 2014, the Corps sent a letter to SPA explaining that the Corp will require SPA to receive an individual permit for the proposed cruise terminal. The Corps letter requested specific information from SPA regarding the project and adjacent properties in order to process the application as a request for an individual permit. On December 31, 2014, the community groups sent a letter to the Corps explaining that a thorough and public EIS and Section 106 review are required prior to issuing any permit for SPA’s proposed terminal.

In response the Corps’ August 12 request for more information, on June 24, 2015 SPA provided the Corps with the entire record in the state permit appeal case—43,031 pages of information without any index or means of navigating the material and including material completely unrelated to the Corps request. In the cover letter for this material, SPA provides a new overview of its proposed project, arguing that:

- (1) The voluntary cruise management plan “effectively addresses community concerns”;

- (2) Failure to approve the proposed cruise terminal will result in the use of Union Pier Terminal as a “m[a]rine terminal for cargo operations,” including “significant roll-on/roll-off cargo like automobiles, truck, and heavy equipment”;
- (3) The proposed terminal “will improve the environment in Charleston” and “result in significantly lower air emissions from UPT”;
- (4) The proposed terminal will have no negative impacts on the historic Character of Charleston, and will improve Charleston’s historic character by “provid[ing] a visible connection for the Charleston [Historic District] with its maritime past that is not readily visible elsewhere”; and
- (5) The proposed terminal will “significantly improve traffic flow over existing patterns.”

On July 23, 2015, the Corps issued a Public Notice seeking comment on SPA’s proposed project. In that Public Notice, the Corps states that, [p]rior to issuing this notice, the Corps requested SCDHEC’s position regarding the requirement for a Section 401 water quality certification,” and, “[a]ccording to SCDHEC, no Section 401 water quality certification from the State is required to conduct the proposed work.”

COMMENTS

I. The Corps must prepare an EIS before issuing a permit to SPA

As noted earlier, on behalf of the Preservation Society and League, SELC sent the Corps a letter on December 31, 2014 discussing the significant impacts of SPA’s proposed cruise terminal on the human environment and the legal requirements to prepare an EIS and conduct a Section 106 review with full, thorough participation from the public before making its decision on SPA’s permit.

NEPA requires the Corps to prepare an EIS when a proposed project will likely have “significant impact on the human environment.” As detailed in our December 31, 2014 letter and in this letter, the impacts of SPA’s proposed project on the human environment of Charleston will be significant and the Corps’ is legally required to prepare an EIS before issuing this permit. But even if SPA disputes, or the Corps is uncertain about, the size or nature of the impacts of the proposed project, the law still requires the Corps to prepare an EIS before issuing this permit. The applicable regulations state that the Corps should still prepare an environmental impact statement where a project’s impacts are “highly controversial.” 40 C.F.R. § 1508.27(b)(4). Impacts are “highly controversial” when there is a “substantial dispute about the size, nature, or effect” of the action. *Rucker v. Willis*, 484 F.2d 158, 162 (4th Cir. 1973). This project is highly controversial, and any dispute regarding the nature of proposed terminal’s impacts provides further reason why the Corps must prepare a full EIS. In addition, the federal court made clear that “‘when it is a close call whether there will be a significant environmental impact from a proposed action’ the ‘policy goals underlying NEPA are best served if agencies err in favor of preparation of an EIS when there is a substantial possibility that the proposed

activity may have a significant impact on the environment.” *Preservation Society*, 2013 WL 6488282, at *3 (quoting *Friends of Back Bay v. U.S. Army Corps of Engineers*, 681 F.3d 581, 590 (4th Cir. 2012)). Whether because the impacts of SPA’s project will be significant, are highly controversial, or because it is a close call and the Corps wants to err in favor of the policy goals identified by the federal court, the Corps must prepare an EIS before issuing this permit.

In these comments, we elaborate on why the proposed cruise terminal will have a “significant impact on the human environment” under NEPA, specifically in light representations made in SPA’s most recent application regarding the impacts of its proposed terminal.

A. The Limits Mentioned in Voluntary Cruise Management Plan Are Not Cognizable Mitigation Measures Unless Made Binding Permit Conditions

There are decision points in both the NEPA environmental review process and the NHPA historical review process where an agency can decide that there will not be significant impacts on the environment or adverse impacts on historical resource because of mitigation measures taken by the applicant. In the NEPA context, this is called a “mitigated finding of no significant impact,” or “mitigated FONSI,” and occurs after the preparation of an Environmental Assessment rather than a full EIS.³⁸ However, for the Corps to rely on mitigation measures to offset a project’s impacts, the mitigation measure must be either enforceable “through the imposition of a mandatory permit condition . . . or . . . enforced by a literal police presence.” *Friends of Back Bay*, 681 F.3d at 589.

Courts vigorously enforce this requirement. In *Friends of Back Bay*, the Corps issued a mitigated FONSI for a marina project impacting wetlands habitat based on a “no-wake zone” imposed by the Corps that would be enforced “through education, signage, and public pressure.” *Id.* at 585. The Fourth Circuit Court of Appeals, which governs the Charleston District, vacated the Corps decision because the Corps had not illustrated that the no wake zone was actually enforceable. *Id.* at 589. Thus, claiming that the “public pressure” no-wake zone would actually mitigate the project’s impacts “was a logical nullity,” akin to “leav[ing] cauldrons of candy on their front porches at Halloween hop[ing] the neighborhood trick-or-treaters will behave themselves and take only their fair share.” *Id.* Rather, to rely on a mitigation measure the Corps must be able to show that the condition is either enforceable “through the imposition of a mandatory permit condition . . . or . . . enforced by a literal police presence.” *Id.* “Being unable to divorce the Corps’s demonstrably incorrect assumption of an effective [no wake zone] from its ultimate conclusion that no EIS need be prepared,” the Court felt “constrained to invalidate the resultant FONSI as arbitrary and capricious.” *Id.*

The limits in the Voluntary Cruise Management Plan are completely unenforceable and the Corps cannot rely on the Plan as mitigation under the court’s reasoning in laid out in *Friends of Back Bay* unless the limits of the Plan are included as mandatory permit conditions. The environmental and historic impacts of SPA’s proposed terminal stem from the increasing size, frequency, and pollution of cruise ships calling on Charleston and the corresponding on-land activities and traffic. The Voluntary Cruise Management Plan does not mention cruise ship

³⁸ See Southern Environmental Law Center’s December 31, 2014 letter to the Corps for further discussion of this difference.

pollution and consists merely of unenforceable advanced notification of potential increases in ship size and frequency. According to SPA, the size and frequency limits contained in the Voluntary Cruise Management Plan “do[] not limit or impact in any way the cruise business in Charleston,” as SPA has explained in correspondence with Carnival Cruise Lines submitted as part of this application.³⁹ As written, the size and frequency limits in the Plan are not even “voluntary”—the voluntary concession in the plan is that SPA will notify the City and stakeholders *when* it intends to exceed those limits, and no provision is made in case SPA fails to abide by even this advance notification procedure. Although SPA could feasibly and profitably operate its terminal within the vessel size and frequency limits mentioned in the agreement, SPA has not, in fact, limited the size, frequency, and pollution of cruise ships. Thus, the Voluntary Cruise Management Plan itself does not mitigate potential historic and environmental impacts of the proposed cruise terminal, and does not effectively address community concerns.

In contrast, if the Corps imposed the size and frequency limits of the Plan as “mandatory permit condition[s]” on SPA’s permit, those limits could mitigate some of the proposed terminal’s historic and environmental impacts. *Friends of Back Bay*, 681 F.3d at 589. It is within the Corps authority to impose operational conditions on a permit. For example, in *Friends of Back Bay*, the Corps had also “attache[d] a number of operational conditions” on the Section 10 permit for the marina in that case, including restrictions on the size and type of boat that may use the facility. *Id.* at 583. The problem was that these conditions had not been sufficiently strict to mitigate impacts, which is why the Corps relied too heavily on the unenforceable no-wake zone. *Id.* at 589. The Court took no issue with the Corps’ operational conditions on the marina. *Id.* The materials submitted to the Corps by SPA in support of its application describe other ports that have successfully placed limits on their cruise business,⁴⁰ and even include studies recommending “strict and binding passenger and ship quotas, such as the one recommended in the voluntary agreement.”⁴¹

The Section 106 process can and should also result in mandatory permit conditions limiting the size and frequency of cruise operations or otherwise mitigating the historic impacts of the cruise business. For example, a 2001 Memorandum of Agreement (MOA) between the Corps, historic groups, and a Section 10 permit applicant required that stipulations of the agreement to reduce historic impacts “shall be included as special conditions of a Corps permit.”⁴² MOAs from the Section 106 consultation process often place conditions on the operation of a proposed project to reduce the projects impact on historic resources and communities—for example, the 2001 MOA referenced above required a power plant to operate certain technologies at certain times to preserve a National Landmark home’s view of the

³⁹ SCPA 006999.

⁴⁰ SCPA 018882 (discussing limits on cruise operations in ports at Key West, Florida, Galveston, Texas, and Juneau, Alaska).

⁴¹ SCPA 015702

⁴² See Memorandum of Agreement among the United States Army Corps of Engineers, New York District, the New York State Historic Preservation Office, the Advisory Council on Historic Preservation, and the Athens Generating Company, L.P. regarding the Athens Generating Facility, Athens, Greene County, New York at 3 (June 7, 2001) (attached) (hereinafter “Athens MOA”).

Hudson River valley.⁴³ Additionally, parties may agree in an MOA to place conditions on the design of the proposed project to limit impacts to historic resources—including visual impacts and traffic impacts—or place conditions on each individual NEPA alternative to ensure that proper mitigation measures are taken if a harmful alternative is ultimately selected.⁴⁴ Finally, MOAs have required the permittee to place covenants on land that is planned for future development in order preserve historic resources. All of these conditions may be made enforceable and relevant to the Corps analysis by including them as mandatory conditions of the federal permit.

Importantly, the Corps would have to impose the size and frequency limits as mandatory conditions of the permit, rather than attach the Plan itself, for the conditions to effectively help mitigate the project's impacts under *Friends of Back Bay*. *Id.* at 589. For example, DHEC attached the entire Plan as a “special condition” to its authorizations of the proposed terminal. The effect of attaching the Plan as a condition to the state permit is at issue in the state court appeal; but as noted above, the Plan as written only requires *notice* of SPA's intent to exceed the size and frequency limits and does not impose actual limits. While notice could be significant in its own right for different purposes, a requirement to give notice of size increases is materially different than an agreement to limit size increases. Even if the Plan were made a condition of the permit, SPA would only be in violation of its terms if it failed to give notice to the appropriate parties of its plans to exceed the size and frequency limits. Thus, simply attaching the Plan as a condition to the federal permit would not be sufficient to help mitigate the terminal's historic and environmental impacts under *Friends of Back Bay*. *See id.* at 589. Rather, the Corps would need to impose the size and frequency limits themselves as mandatory conditions of the permit.

B. Significant Roll-on, Roll-off and cargo operations no longer occur at Union Pier Terminal, and will not return if SPA does not build a new cruise terminal

SPA's past threat that that, unless the community supported SPA's new cruise terminal, SPA would continue cargo operations at UPT, which it described as “a terrible outcome for all concerned in the city,”⁴⁵ is no longer relevant. In the past five years, nearly all roll-on, roll-off (“ro-ro”) cargo has been moved to Columbus Street Terminal and other terminals. As the *Post & Courier* recently explained, “[t]he 135-acre [Columbus Street] terminal previously handled container cargo” while “BMW vehicles were stored at Union Pier Terminal to the south while awaiting export,” but “BMW was growing, so [SPA] decided to make this (Columbus Street) a Ro-Ro terminal with BMW as the anchor tenant.”⁴⁶ In records submitted to the Corps in support

⁴³ See Athens MOA, *supra* note 41 at 1-5. See also Old Colony Railroad Rehabilitation Project Greenbush Line Restoration Towns of Braintree, Cohasset, Hingham, Scituate and Weymouth Section 106 Consultation Programmatic Agreement at 9-10 (Nov. 4, 2003) (attached) (hereinafter “Hingham MOA”).

⁴⁴ See, e.g., Athens MOA, *supra* note 41 at 1-5, Hingham MOA, *supra* note 42 at 5-10; Memorandum of Agreement Among the Department of the Navy, the California State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Lease and Conveyance of the Long Beach Naval Complex Long Beach, California at 2-6 (Jan. 1, 1998) (attached).

⁴⁵ Bird, *SPA vows to avoid fight over cruise ship project*, *supra* note 22.

⁴⁶ David Wren, *Container cargo could return to Port of Charleston's Columbus St. Terminal*, CHARLESTON POST & COURIER (Apr. 15, 2015), <http://www.postandcourier.com/article/20150415/PC05/150419577/1177/container-cargo-could-be-headed-to-spa-x2019-s-columbus-street-terminal>. See also SCPA 007148 (showing that, as of March 2011, SPA says ro-ro has moved to new and improved CST, thus “daily trainloads” of vehicles will no longer enter UPT).

of its application, SPA admits that Union Pier Terminal “would not accommodate growth of our major roll-on, roll-off customer, so it was decided to move them to Columbus Street Terminal.”⁴⁷ An industry publication reported that “[t]he 6-month, \$21.7-million project” completed in 2011 “enhance[d] more than 70 acres of storage yard and add[ed] additional rail infrastructure” to shift “roll-on/roll-off cargo operations from Union Pier Terminal to the larger Columbus Street Terminal.”⁴⁸ “About 800 BMW vehicles now move through the Columbus Street Terminal every day,” and the terminal is expected to “handle the additional volume” created by Volvo’s decision to move manufacturing facilities to South Carolina.⁴⁹ Thus, the current and foreseeable reality is that major, ro-ro operations do not—and will not—occur at Union Pier.

In contrast, the cargo ships that still occasionally call on Union Pier Terminal are smaller than the smallest Carnival Cruise ships.⁵⁰ They are not as tall, modern, or visually disruptive as the cruise ships. For an approximation, compare the *Ipsea Colossus* on the right, which docked at Union Pier in August 2015, with a 3000 passenger Carnival ship on the left, using the tug for rough scale:



These smaller cargo ships typically carry steel, not several thousands of passengers with cars and other onshore impacts. They have very few crew members and do not produce the levels of waste and pollution produced by cruise ships during their home base visits in Charleston. A 2011 SPA survey submitted to the Corps as part of this application shows that the cruise terminal emitted more air pollution than the terminals serving even the large ro-ro ships.⁵¹ And these smaller cargo ships visit less frequently than cruise ships, who visit at least once every week. Thus, SPA’s representation that Union Pier “has accommodated upwards of 200 cargo ships annually, and the requisite trains and trucks necessary to service those cargo ships,” is

⁴⁷ SCPA 009435.

⁴⁸ H. Butler, *Charleston Relocates Ro-Ro to Columbus Street Terminal*, JOC SAILINGS, Feb. 28, 2011, <http://www.jocsailings.com/tabid/74/ArticleId/10666/Charleston-Relocates-Ro-Ro-to-Columbus-Street-Terminal.aspx>.

⁴⁹ Liz Segrist, *Automotive, retail distribution boost port activity*, CHARLESTON REGIONAL BUSINESS JOURNAL, July 20, 2015, <http://www.charlestonbusiness.com/news/55119/print>. See also Wren, *Container cargo could return to Port of Charleston’s Columbus St. Terminal*, *supra* note 45.

⁵⁰ For example, the *Ipsea Colossus*, which has docked at Union Pier in August of 2015, is 1/3 the width, 1/2 the tonnage, and slightly longer than the *Carnival Fantasy*.

⁵¹ SCPA 014554.

misleading.⁵² Based on records SPA has submitted to the Corps as part of its application, the number of cargo ships visiting Union Pier dropped from 179 in 2005 to 35 in 2011.⁵³ And SPA records show that *zero* cargo ships—big or small—visited Union Pier Terminal in between November 2011 and February 2012.⁵⁴ The small, infrequent cargo ships or occasional larger ships that may call on Union Pier do not have near the impact of the large, weekly cruise ships planned for Union Pier.⁵⁵

By arguing that cruise operations will displace ro-ro cargo operations, SPA presents a materially incorrect baseline to the Corps for comparing proposed and existing operations for Union Pier. SPA wants the Corps to compare environmental and historic impacts of proposed cruise operations with its substantial cargo and ro-ro operations on other terminals. This is unrealistic and incorrect. SPA's own documents submitted to the Corps in support of its application conclude that placing ro-ro cargo operations alongside cruise operations at Union Pier "will not work in the long run."⁵⁶ Or as SPA's top executive explained to *The State* soon before SPA moved large cargo operations from Union Pier to Columbus Street Terminal, "Union Pier is not going to support" ro-ro cargo operations, "We know that."⁵⁷ If the Corps wants to make a comparison, the Corps must compare the environmental and historical impacts of the proposed cruise operations with small and infrequent cargo operations that occasionally occur on Union Pier. When compared to the small and infrequent cargo operations, SPA's cruise operations will have a significant impact on the human environment and historic character of Charleston.

C. SPA's proposed cruise terminal will not improve Charleston's environment; the environmental impacts of SPA's proposed cruise terminal are significant

1. Air Pollution

SPA's claim that the proposed terminal will improve air quality in Charleston includes two arguments, both of which are misleading and incorrect.

First, SPA's claim that "the Union Pier Plan will result in more than 50% reduction in UPT-related emissions in the historic district" suffers from the same baseline problem addressed above, in Part I.B: SPA is comparing projected cruise operations in 2015 to the substantial cargo and ro-ro operations at Union Pier in 2010. As explained above, this is not the correct comparison because substantial cargo operations no longer occur at Union Pier. Rather, the cargo operations that still occur at Union Pier are much smaller and less frequent than proposed cruise operations. As such, SPA is comparing apples to oranges, and has not shown that air emissions will get better as a result of the proposed terminal.

⁵² "South Carolina State Ports Authority Union Pier Summary" at 1, attached to Letter from James K. Van Ness, III, Vice President, Engineering and Facility Maintenance, SCSPA to Ms. Tina Hadden, Chief, Regulatory Division, U.S. Army Corps, Charleston District (June 24, 2015).

⁵³ SCPA 014530.

⁵⁴ SCPA 006800.

⁵⁵ SCPA 007148.

⁵⁶ SCPA 010744 (SPA stating that putting ro-ro and cruise both at UPT "will not work in the long run").

⁵⁷ John McDermott, *BMW drives Charleston's need for port space*, THE STATE, Sept. 29, 2009, <http://www.thestate.com/news/business/article14348483.html#storylink=cpy>.

Second, SPA's argument that with existing cruise operations "Charleston's air quality fully attains all State and Federal standards and is actually getting cleaner" misses the point of the local communities' concern. State and federal air pollution standards are regional, and are not intended regulate localized impacts well. As a result, air pollution from cruise ships—though legal—may still be inappropriate in the unique historic and residential context of downtown Charleston, which is the relevant concern to NEPA and NHPA analysis. The localized air pollution from cruise ships is largely unregulated by state and federal authorities, and community members have presented clear evidence that, exhaust from cruise ships covers both the interior and exteriors of their homes in soot, disrupting their enjoyment of their property and causing them to fear for their health. EPA has concluded that exposure to diesel exhaust increases risk of cancer and exacerbates asthma and allergy symptoms, particularly in children, people with heart and lung diseases, and the elderly who live near port facilities.⁵⁸ Because exposure risks are cumulative over time, even incremental improvements yield important health benefits.

By allowing the cruise ships to turn off their engines while docked, the community members have illustrated that shore power would substantially reduce this impact of the cruise ships' air pollution while in port, even taking into account the "cleaner" low-sulfur diesel fuel and scrubbers.⁵⁹ Because SPA's contention that regional air pollution controls shields it and the Corps from considering of the local impacts of its operations misses the point of NEPA, NHPA, and SPA's own statutory mandate "to diminish or mitigate any negative effect port operations or expansion may have upon the environment, transportation infrastructure, and quality of life of residents in communities located near existing or proposed port facilities." S.C. Code Ann. § 54-3-80(A)(3)(d).

And SPA's arguments that shore power is infeasible are not supported by the record before the Corps. SPA's own documents submitted to the Corps as part of this application show that:

- Under both SPA and Carnival's standards shore power is feasible at the proposed site,⁶⁰
- Shore power would be less expensive than SPA has said,⁶¹
- Shore power can be cheaper than running diesel engines while in port,⁶²

⁵⁸ See, e.g., U.S. EPA, "EPA Finalizes More Stringent Standards for Control of Emissions from New Marine Compression-Ignition Engines at or Above 30 Liters per Cylinder" at 2-3, (Dec. 2009) available at <http://www3.epa.gov/nonroad/marine/ci/420f09068.pdf>; U.S. EPA, "Health Assessment Document for Diesel Engine Exhaust" at 1-3 and 1-4, (2002) available at <http://cfpub2.epa.gov/ncea/cfm/recordisplay.cfm?deid=29060#Download>.

⁵⁹ See also James Corbett, Clearing the Air: Would Shoreside Power Reduce Air Pollution Emissions from Cruise Ships calling on the Port of Charleston, SC? at 1, 12 (Sept. 9, 2013) (attached to SELC's December 31, 2014 letter submitted to the Corps) (finding that "that the use of shore power would greatly reduce air pollution from [cruise] ships," even accounting for low-sulfur fuels). Low sulfur fuel and scrubbers do not address numerous other pollutants in diesel fuel, like soot and other particulate matter. See *infra* notes 78-81 and accompanying text.

⁶⁰ SCPA 007337 (drawings showing shoreside power incorporated into terminal plans); SCPA 008171 (showing that Carnival's criteria for utilizing shoreside power show all are met); SCPA 011656.

⁶¹ SCPA 007369 (SPA contractor estimates shoreside power to cost \$5.3M); SCPA 008102 (estimating shoreside power to cost between \$5 and \$7 million); SCPA 008670 (stating cost of shoreside power around \$7 million).

- SPA could work with the City of Charleston and SCE&G to offset the cost of shore power,⁶³
- SPA directed its contractors to remove shore power that was already included in the construction plans,⁶⁴
- Shore power is popular and is been implemented with success at numerous east coast ports.⁶⁵

In sum, SPA has not shown that its proposed project will improve air quality in Charleston, and has not refuted the community groups' suggestion that, even in light of cleaner diesel fuel and scrubbers, shore power is the most effective alternative to reduce the air pollution impacts felt by nearby communities. Thus, the Corps must study the impact of the cruise ships air emissions based on a realistic baseline rather than the port's operations in 2010, and consider the community groups' materials showing shore power as an effective alternative to reduce air pollution impacts on local communities.

2. Water Pollution

In addition to the water quality impacts of the new terminal itself—which, SPA has said “will be a concern here”⁶⁶—water pollution from cruise ships, even those who comply with the industry's voluntary measures, is serious and well documented. No one—not SPA, not DHEC, and not the Corps—has evaluated the impacts of SPA's proposed terminal on the water quality of Charleston's waterways, all of which are waters of the United States subject to the Corps' jurisdiction. The Corps must study the water pollution impacts of SPA's proposed project before issuing the requested permit.

As noted in our December 31 letter, cruise ships discharge levels of trash and wastewater comparable to a small town, but are not subject to the same pollution controls as municipal waste water systems that discharge into the harbor. Cruise ships discharge water pollution such as ballast water, hull coatings, waste water that would typically come from a domestic kitchen or bathroom known as “gray water,” and untreated sewage known as “black water.” In other port locations where cruise ship discharges have been tested, results have shown gray water to have fecal coliform levels thousands of times higher than limits applicable to landside wastewater dischargers.⁶⁷ While treatment is required within the navigable waters of the U.S. under the

⁶² SCPA 008601 (showing that, with diesel price fluctuations, shoreside power can be cheaper than running on board engines); SCPA 008670 (showing that shoreside power economics should improve with more restrictive fuel standards required by international law).

⁶³ SCPA 011081 (SPA stating that “City is looking for an electrical substation location that supposedly is worth \$5 million to them” as an opportunity to offset cost of shoreside power).

⁶⁴ SCPA 012050 (SPA instructing contractor to remove shoreside power).

⁶⁵ SCPA 008753 (showing that 17 ports utilize shoreside power).

⁶⁶ SCPA 012100 (SPA stating “water quality will be a concern here.”); SCPA 012101 (SPA noting stormwater collection and conveyance system is outmoded and outdated).

⁶⁷ Ross A. Klein, Friends of the Earth, Getting a Grip on Cruise Ship Pollution at 5 (Dec. 1, 2009), available at <http://www.foe.org/system/storage/877/69/c/499/Getting-a-grip-on-cruise-ship-pollution.pdf>.

Vessel General Permit, the requirements have not been revised since the 1970s, and enforcement of any limitations against has been limited.⁶⁸ For example, as noted in our prior letter, Carnival recently pled guilty to federal criminal charges for willfully discharging pollutants over their permit limits and falsifying records of its discharges to the government.⁶⁹

Exceedingly high levels of gray water from cruise ships can be a significant public health concern. In 2010, the 1,900 passenger cruise ship the *Celebrity Mercury* visited Charleston with over a thousand passengers ill with the norovirus and resulted in five outbreaks of the illness in the city of Charleston, with each outbreak affecting up to 70 people.⁷⁰ Under such tight quarters, cruise ships are particularly susceptible to illness outbreaks,⁷¹ which can be spread through the largely unregulated discharge of a ship's gray water.⁷² Cruise lines say that they will not discharge waste within 12 miles of the harbor, but view those limitations as strictly "voluntary."⁷³ And as discussed above, the Corps cannot rely on voluntary mitigation measures to find that a project has no significant impact.⁷⁴ Under the law, cruise ships are authorized to discharge sewage as close as three miles from shore, and gray water as close as a mile from shore if the ship is moving.⁷⁵

In addition to traditional water pollutants, the Corps must study the water quality impact of scrubbers that Carnival intends to use to clean the air pollution of its cruise ships. SPA's public relations staff have "go[ne] on the offensive" arguing that shore power is not needed because Carnival intends to install "scrubbers" on the *Carnival Fantasy* to reduce sulfur dioxide emissions.⁷⁶ While it is apparently true that the *Fantasy* will receive scrubbers as part of Carnival's cooperative trial program with U.S. EPA to reduce ship emissions,⁷⁷ the scrubbers and new low sulfur fuels only impact the vessels' emission of sulfur dioxide, not other harmful diesel exhausts. SPA predicted in 2011 that emissions of the pollutants nitrous oxide and carbon

⁶⁸ *Id.*

⁶⁹ See *United States v. Carnival Corp.*, No. 1:02 CR2-350-001 (N.D. Fl. Apr. 19, 2002).

⁷⁰ Allyson Bird, *Norovirus visits dry land, too*, CHARLESTON POST & COURIER, Feb 25, 2010, <http://www.postandcourier.com/article/20100225/PC1602/302259864>.

⁷¹ See, e.g., Todd Leopold, *More than 200 sickened on cruise ships*, CNN, Apr. 13, 2015, <http://www.cnn.com/2015/04/13/travel/feat-cruise-ship-sick-celebrity-infinity/>; Philip Ross, *Carnival Cruise Virus Outbreak Infects 172 People, Ship Set To Soon Leave For Mexican Riviera*, INTERNATIONAL BUSINESS TIMES, Nov. 16, 2014, <http://www.ibtimes.com/carnival-cruise-virus-outbreak-infects-172-people-ship-set-soon-leave-mexican-riviera-1724558>.

⁷² See, e.g., World Health Organization International Health Regulations Guide to Ship Sanitation, Third Edition, Version 10 (2007) 31 ("Unsafe management and disposal of ship wastes" including "grey water," "can readily lead to adverse health consequences. Humans can become exposed directly, both on ship and at port, due to contact with waste that is not being managed in a safe manner.") Available at http://www.who.int/water_sanitation_health/gdwqrevision/gss_draft.pdf.

⁷³ SCPA 009301.

⁷⁴ See *supra* Part I.A.

⁷⁵ Klein, *Getting a Grip on Cruise Ship Pollution*, *supra* note 67 at 5.

⁷⁶ Tyrone Richardson, *Charleston-based Fantasy cruise ship to get new pollution scrubbers, port says*, CHARLESTON POST & COURIER, Feb 19, 2014, <http://www.postandcourier.com/article/20140219/PC05/140219300>.

⁷⁷ Letter from J.C. Burton, Captain, U.S. Coast Guard, Director of Inspections and Compliance, and Christopher Grundler, Director, Office of Transportation and Air Quality to Michael Kaczmarek, Vice President, Shipbuilding, Carnival Corporation (Aug. 8, 2013), available at <http://www.epa.gov/otaq/documents/oceanvessels/carnival-letter-epa-uscg-response-8-8-13.pdf>; SCPA 010747-792 (EPA publication on Exhaust Gas Scubber Washwater Effluent).

monoxide will increase over 2005 to 2015, despite the low-sulfur fuel.⁷⁸ And SPA has not made clear whether the Carnival *Ecstasy*, *Sunshine*, and other ships that are scheduled to visit Charleston will have this technology installed as well.

One thing does appear clear: these scrubbers will increase the ships' water pollution. The scrubbers work by running gaseous exhaust through a water treatment that traps certain pollutants.⁷⁹ This process generates a highly polluted liquid byproduct—called sludge—that must itself be treated and disposed of.⁸⁰ In U.S. EPA case studies, this sludge has contributed to violations of water quality standards for numerous pollutants, including dangerous metals and arsenic.⁸¹ Nevertheless, as a new trial program, EPA has not yet applied any special disposal requirements to this sludge, and a cruise ship may dispose of the sludge with its other wastewaters.⁸² The Corps must assess the water pollution caused by these scrubber technologies to document their impact and evaluate whether SPA is trading air pollution for increased water pollution.

The Corps cannot rely on DHEC's permitting process to assess and mitigate the water quality impacts of SPA's proposed project. DHEC has not—and, according to the Public Notice, will not—study the water quality impacts of SPA's cruise operation.⁸³ As explained above, the authorizations issued by DHEC to SPA clearly do not include a 401 Certification—the title of the permit document explicitly states that DHEC only issued a Critical Area Permit and Coastal Zone Consistency Certification, and the agency wrote “n/a” in the space illustrating whether DHEC's OCRM and BWP had collaborated to include the 401 Certification as part of the decision making process, as required by state law.⁸⁴ See S.C. Code Reg. § 30-2(H), 61-101(A)(7)-(8). The state permits did not recognize any of the potential water quality impacts discussed above, and did not impose any substantive conditions to limit water pollution impacts of SPA's proposed cruise operations.⁸⁵ DHEC's obligation to issue a 401 Certification for SPA's project is a live issue on appeal before the South Carolina Court of Appeals. As reflected in the Public Notice, it is apparently DHEC's position that no 401 Certification is required for this project. Thus, unless the Corps studies the water pollution impacts of SPA's proposed terminal, no agency will have reviewed the water pollution impacts of SPA's project at all, in clear violation of the spirit and letter of the Clean Water Act.

The water pollution impacts of SPA's proposed cruise operations will significant, and NEPA obligates the Corps to prepare an EIS thoroughly assessing the water pollution impacts of SPA's cruise operations.

⁷⁸ SCPA 014567 (2011 emissions inventory projecting emissions of NOx and CO will increase from 2005-2015, even considering low sulfur fuel).

⁷⁹ See SCPA 010754-758.

⁸⁰ *Id.*

⁸¹ SCPA 010763-7 86.

⁸² *Id.*

⁸³ See Email from Heather Preston, Director, Water Quality Division, SCDHEC to Nathaniel Ball, Special Projects Branch, U.S. Army Corps (July 21, 2015) (attached) (“Nat, Thanks for the opportunity to review the Public Notice. As requested, we are confirming that the project as proposed does not require a 401 Water Quality Certification.”).

⁸⁴ DHEC, OCRM, Regulatory Programs Division Decision Document, “Administrative Summary of Review” (attached) (showing “n/a” in space indicating “DHEC-401” involvement).

⁸⁵ See *id.*

D. SPA's proposed cruise terminal will significantly and negatively impact nationally significant historic resources

Impacts to both specific historic protected building and more general historic character and context are among the impacts to the human environment that the Corps must consider when determining the agency's duty to prepare an EIS.⁸⁶ As the federal court explained when reviewing the Corps' prior approval of SPA's cruise terminal, "[i]n examining potential effects on historic properties, the agency . . . must consider both the direct and indirect effects on historic properties by the type of activity proposed, both within and outside the permit area." *Preservation Society*, 2013 WL 6488282 at *4 (citing 36 C.F.R. § 800.16(d) (defining "area of potential effects"), and 33 C.F.R. Pt. 325, App. C, paras. 2a-b, 5f). "An 'adverse effect' can be found," the court continued, "where the proposed project 'may alter, directly or indirectly, any of the characteristics of a historic property,' including action that 'would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.'" *Id.* (citing 36 C.F.R. § 800.5(a)(1). Importantly, the court clarified that the Corps consideration of impacts must "include 'reasonably foreseeable effects'" of the proposed cruise terminal, "and the 'introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features.'" *Id.* (quoting 36 C.F.R. § 800.5(a)(2)(v)). Before, the Corps had erred in not including the impacts of cruise operations on historic character of Charleston, such as the visual impact of the cruise ships and impacts of increased pollution and traffic, in its review of SPA's permit. *Id.* at *16.

The Fourth Circuit Court of Appeals has also made clear: "that the proposed project will not actually touch any of the historic sites . . . is of no moment" when deciding whether a proposed project could have an adverse effect on protected historic value. *Pye v. United States*, 269 F.3d 459, 468-69 (4th Cir. 2001); *see also Waterford Citizens' Ass'n v. Reilly*, 970 F.2d 1287, 1289 (4th Cir. 1992) (holding that a project may "adversely affect the historic site . . . by stimulating growth and development after its construction."). "The Corps' own regulations pursuant to the National Historic Preservation Act require it to 'take into account the effects . . . beyond the waters of the U.S.'" *Pye*, 269 F.3d at 470 (quoting 33 C.F.R. pt. 325 app. C, para. 2a) (emphasis in original). Residents living in historic districts impacted by and adjacent to a proposed project have standing to enforce the requirements of the NHPA against the Corps as part of the NEPA process. *Pye*, 269 F.3d at 467-68 (collecting cases); *Preservation Society*, 2013 WL 6488282 at *14-*15 (finding that Preservation Society and League had standing to enforce the Corps' application of NEPA and NHPA to SPA's proposed cruise terminal) (citing *Pye*, 269 F.3d at 467-68; *Waterford Citizens*, 970 F.2d 1287).

SPA's proposed terminal will have significant impacts on specific historic structures and the historic character of Charleston well beyond the individual properties and neighborhoods identified in the Public Notice. The impacts of SPA's cruise operations are reasonably foreseeable effects of SPA's proposed cruise terminal. *Preservation Society*, 2013 WL 6488282 at *4. Among the cruise operation's many effects on Charleston, the ultra-modern cruise ships

⁸⁶ See 40 C.F.R. § 1508.27(b)(3), (8) (must evaluate the "Unique characteristics of the geographic area such as proximity to historic or cultural resources," and "The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.").

tower many stories above the city's height restriction, visually impacting the view of and from historic buildings across the entire peninsula. This is especially important because Charleston's tallest buildings, including the Francis Marion Hotel, People's Building, and many of the churches that define the Charleston skyline, are either specifically listed on the National Register for Historic Places or included within the protections of the Charleston Historic District, which is itself listed in the National Register.⁸⁷ Likewise, by both adding significantly to traffic and congestion in the downtown area preserved dense residential character and by covering residential neighborhoods is thick, visible diesel exhaust and soot, the cruise ships impact the character of Charleston beyond the properties immediately adjacent to the propose cruise terminal. *See Preservation Society*, 2013 WL 6488282 at *6 (discussing how "[t]he adverse impacts" on "the quality of life and historic feel and integrity of these communities and structures" in Charleston "include traffic congestion, air and noise pollution, and impairment of Charleston's scenic beauty.").

National groups have recognized the significant impacts the cruise terminal will have on Charleston's historic buildings and character. As noted above, the National Trust for Historic Preservation listed Charleston among the eleven most endangered historic places in the United States because "expanding cruise ship tourism could jeopardize the historic character of the city, historic downtown Charleston and its surrounding neighborhoods."⁸⁸ In 2012, the World Monuments Fund listed Charleston as one of the most endangered historic places in the world as a result of "unregulated growth in cruise ship arrivals."⁸⁹

In context, SPA's argument that current and future cruise operations will have no impact on Charleston's historic character—or actually improve historic value by "provid[ing] a visible connection for the Charleston [Historic District] with its maritime past that is not readily visible elsewhere"—is disingenuous. For one, SPA's own documents submitted to the Corps as part of this application recognize that it is a "challenge" to "maintain[] a size and scale of cruise ship activity that preserves Charleston's unique character. After all, that's why the ships and their passengers are here in the first place."⁹⁰ The materials submitted to the Corps as part of this application show that SPA is well aware of evidence showing "that the current unmanaged increase in cruise tourism and the redevelopment of Union Pier is not in keeping with the holistic management of the city," and that "[t]his lack of regulation makes Charleston vulnerable to the adverse impacts" that "could result in 'killing the goose that lays the golden egg.'"⁹¹

Further, Charleston's maritime *history* is readily visible in the numerous buildings that represent Charleston's role as one of the nation's foremost ports and cultural centers in the 18th

⁸⁷ See National Register of Historic Places

Inventory Nomination Form, Charleston Historic District Boundary Increase, (Aug. 2, 1984), available at <http://focus.nps.gov/pdfhost/docs/NRHP/Text/84002028.pdf> (including the Francis Marion Hotel on the National Register); South Carolina Department of Archives and History, National Register Properties in South Carolina, available at http://www.nationalregister.sc.gov/charleston/S10817710004/index_2.htm (including St. Philip's Episcopal Church).

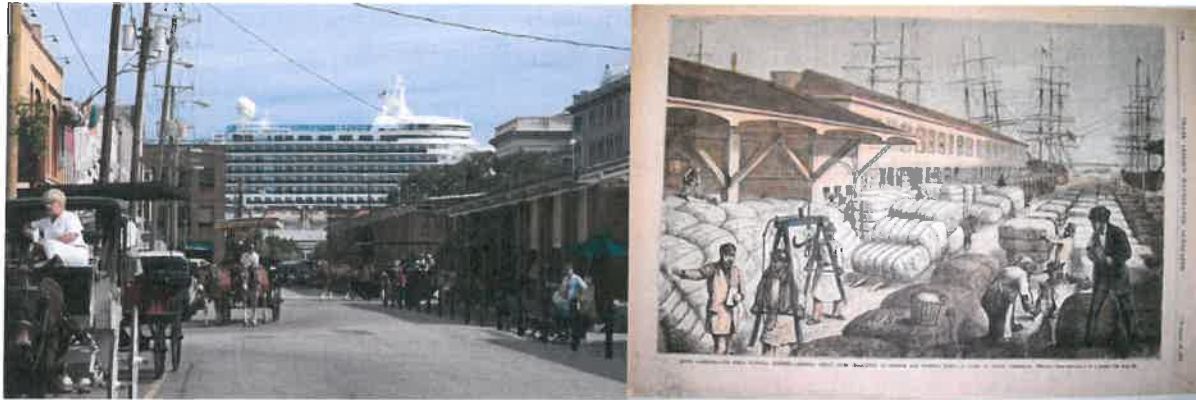
⁸⁸ National Trust for Historic Preservation, "11 Most Endangered Places," *supra* note 24.

⁸⁹ See *supra* notes 25-26.

⁹⁰ SCPA 012437.

⁹¹ See, e.g., SCPA 15641, 15699, 15702 (recommending "strict and binding passenger and ship quotas, such as the one recommended in the voluntary agreement.").

and 19th century—buildings like the federal Customs House, Old Rice Mill, the Market, and scores of colonial-era buildings. SPA’s new and expanding cruise business is distinguishable in scale, character and feel from Charleston’s history as an early American port city. Compare, as one example, two views down the historic Charleston Market: one recent, dominated by a looming cruise ship, the other an example of Charleston’s maritime history:



In contrast to the Market’s historic character carefully preserved for tourism with carriages and low building heights, the cruise ship is totally incongruous—its monolithic form is hardly even recognizable as a ship, looking instead like a multi-story, stylistically modern hotel distinct from the character of the Market and obscuring any view of the harbor. The effect is the same on the view of the Charleston Historic District from the water, where the cruise ships’ size overwhelm and obstruct the view of the city as deliberately preserved in zoning codes, rising above colonial-era steeples that give Charleston its nickname as the Holy City:



SPA's cruise business is incongruous with Charleston's maritime history in function as well as form. Charleston's continuing place in American maritime history stems from its role as a port of import and export, not as a port for *leisure* cruises, and while passenger ships have departed from Charleston for many years, the cruise business as seen today is a modern invention with no precedent in Charleston. Nothing in Charleston's history even closely resembles pleasure cruise ships of this size and character immediately adjacent to the historic downtown.⁹² In sum, SPA's cruise operations will have a significant impact on the human environment in Charleston, and NEPA obligates the Corps to prepare an EIS thoroughly assessing the historic impacts of SPA's cruise operations.

E. SPA's proposed cruise terminal will not improve traffic over existing patterns; the traffic impacts of SPA's proposed cruise terminal are significant

SPA's analysis of the proposed cruise terminal's traffic impacts is substantially flawed. The analysis, prepared in 2010 and available in the documents submitted to the Corps with its application,⁹³ ignores important traffic impacts and, by its own numbers, suggests decreased levels of service in the neighborhoods and streets surrounding the proposed terminal even after opening Washington Street and accounting for potential lane improvements.

There are two serious, threshold problems with SPA's traffic study. First, SPA's study was prepared in 2010; it is outdated. Charleston and its traffic have grown significantly over the last five years and at rate greater than expected.⁹⁴ As such, any analysis prepared in 2010 has likely not analyzed traffic conditions as they exist today and are relevant to the Corps consideration. Second, SPA's traffic analysis is not based on real data. Both the traffic analysis and the Union Pier Concept Plan that relies on the traffic analysis contain the disclaimer that its conclusions are "an estimate as no surveys, counts, or other historical information specific to the Port of Charleston were used," and that the analysis "requires confirmation of accuracy before proceeding with design based on" the analysis.⁹⁵ As far as we know, SPA has not confirmed the accuracy of the analysis before proceeding with a design based on that inadequate analysis. By the study's own terms, neither SPA nor the Corps can rely on SPA's traffic study to make conclusions about the traffic impacts of the proposed cruise terminal.

Putting these threshold concerns aside, the estimated numbers in the study are facially invalid. For example, the Concept Plan states that the study estimated the traffic impacts of a 3,450 passenger vessel—but the study's minimum traffic counts correspond to a 1,980 passenger ship, and the maximum counts correspond to a 3,245 passenger ship, assuming that every car has 3.5 people in it.⁹⁶ Either way, the study analyzes traffic impacts for ships that are *smaller* than

⁹² SCPA 012526 (describing Charleston "rapidly emerging as a uniquely desirable cruise port").

⁹³ SCPA 007594-7913 (2010 Traffic Impact Analysis prepared by Kimley Horn).

⁹⁴ David Slade, *Charleston area among nation's fastest-growing*, CHARLESTON POST & COURIER, Mar. 14, 2014, <http://www.postandcourier.com/article/20130314/PC16/130319590> (noting that Charleston had one of the highest population growth rates in nation from 2010 to 2012).

⁹⁵ Memorandum from Norm Marshall, Principal, Smart Mobility, to Southern Environmental Law Center, "Review of Traffic Impacts of Union Pier Cruise Ship Terminal" August 20, 2015 at 2 (attached) (hereinafter "Traffic Study Review").

⁹⁶ *Id.* at 3.

those that SPA intends to bring to Charleston.⁹⁷ Plus, adjusting the studies assumption that every car contains 3.5 people—assuming, for example, every car contains 3.2 people—dramatically decreases the maximum size ship relevant to SPA’s traffic study: 3,002 passengers.⁹⁸ Other simulations found in the record also only consider ships the size of the *Fantasy*, and not the larger ships SPA intends to bring to Charleston.⁹⁹ In sum, SPA’s traffic study grossly underestimates the traffic impacts of SPA’s proposed cruise terminal.

Another problem with SPA’s traffic study is that the study does not analyze traffic impacts during peak periods, where the community will most feel the additional traffic from SPA’s cruise terminal and redevelopment of the Union Pier Terminal as residential and commercial space. For example, the study does not analyze the impact of traffic from SPA’s cruise operations and planned redevelopment during the peak morning hours.¹⁰⁰ This is particularly important because, while the traffic study assumes that the disembarking process will occur over four hours from 7am to 11am, SPA’s Concept Plan says that the new terminal can process 1,880 passengers per hour, which means the new terminal would discharge a 3,000 passenger cruise ship in about an hour and a half and a 3,500 passenger cruise ship in two hours. If a 3,500 passenger cruise ship arrived to disembark its passengers at 7:00am as planned, the vast majority of 3,500 people would probably enter the road ways between 7:30 and 9:30am—prime morning commute time in downtown Charleston.¹⁰¹

To make matters worse, SPA’s Concept Plan touts that “[o]f particular interest to the cruise lines is the ability to *embark and disembark passengers simultaneously*” at the new terminal.¹⁰² This ability fundamentally undermines SPA’s traffic analysis, which distributes traffic impacts over separate embark and disembark times, many hours apart. SPA has provided no reasonable analysis of traffic impacts if the terminal both embarked and disembarked passengers at the same time.

SPA’s study also underestimates the impacts of traffic from the residential and commercial development. The study specifically seeks to include the impacts of the development, but makes two important oversights.¹⁰³ First, it does not include traffic from the development at all in its analysis of mid-day peak traffic impacts—as such, the mid-day impacts are likely more significant than SPA suggests.¹⁰⁴ Second, the study’s analysis of specific intersections and traffic signals is missing about 40% of the traffic that the study itself estimates will come from the development.¹⁰⁵ This oversight is especially important because it undercuts the traffic study’s specific analysis of traffic traveling on Washington Street, Laurens Street, and

⁹⁷ *Id.*

⁹⁸ *Id.*

⁹⁹ *Id.* However, neither the traffics study nor any other analysis considers any impacts from the over 1200 crew members or staff working at the cruise terminal. *Id.*

¹⁰⁰ *Id.* at 5.

¹⁰¹ See South Carolina State Ports Authority, Cruise Calendar 2015 – Embarkation/Debarkation Only, (last accessed Sept. 21, 2015) <http://www.port-of-charleston.com/cruises/Calendar/cruisecalendar2015-embark.asp>; SCPA 011109 identifying “disembarkation from 6:30 a.m. until 10 a.m.”).

¹⁰² Traffic Study Review, *supra* note 96 at 6. (emphasis added).

¹⁰³ *Id.* at 4-6.

¹⁰⁴ *Id.* at 4-5.

¹⁰⁵ *Id.* at 6.

Market Street, and East Bay Street—streets and intersections that are crucial to those who live and work next to the proposed cruise terminal.¹⁰⁶

The Corps must consider the impacts of the residential and commercial development as part of the NEPA analysis of SPA's cruise terminal, just as SPA has treated the all parts of the redevelopment plan as inextricably linked. SPA's new cruise terminal is the but-for cause of the residential and commercial development—as SPA's top executive explained in materials submitted to the Corps as part of this application, SPA views the cruise terminal and other development as parts of the same project: "Without the new passenger terminal, there will be NO Union Pier Plan. That is a reality."¹⁰⁷ For the same reasons, the Corps is legally required to consider the impacts of the development as impacts of the proposed cruise terminal. Regulations require that the Corps analyze the impacts of "connected actions" together during the NEPA process. 40 C.F.R. § 1508.25(a)(1). Actions are "connected" if the actions (i) "automatically trigger" one another, (ii) "cannot or will not proceed unless [the] other actions are taken previously or simultaneously," and (iii) "Are interdependent parts of a larger action and depend on the larger action for their justification." *Id.* By SPA's own statements and analyses in the record before the Corps, the cruise terminal and related development fulfill all three requirements. Thus, the Corps must consider the impacts of the residential development and the cruise terminal as one connected action, in one EIS. This is consistent with the Corps prior requests for information, which appear to treat impacts of the entire redevelopment plan together.^{108 109}

In sum, SPA has not effectively analyzed the traffic impacts of its cruise terminal under any description it has offered to the Corps as part of this application. Nothing in the record rebuts the straightforward conclusion borne out by parts of SPA's own studies and common sense: that by bringing larger ships with more passengers to Charleston, SPA's proposed terminal will make already terrible traffic in downtown Charleston worse. Discredited by bad assumptions and unreliable data, the Corps cannot rely on SPA's traffic study or assertions that its project will have no impact on traffic. Rather, the Corps must engage in its own study of the traffic impacts of SPA's proposed terminal as part of a thorough and public EIS.

F. The Corps must study alternatives to the project as proposed

As discussed in our December 31 letter, "[t]he primary purpose of the EIS is to carefully explore a reasonable range of locational and functional alternatives that meet some or all of the primary project purposes, including a 'no action' alternative, and compare their overall relative direct

¹⁰⁶ *Id.*

¹⁰⁷ SCPA 017221; *see also* SCPA 002148 (suggesting that the redevelopment and new cruise terminal are part of the same project); SCPA 007098 (identifying the cruise terminal as the "catalyst" to redevelopment).

¹⁰⁸ SCPA 011115 (Corps stating: SPA must "identify any changes to the future operation of Union Pier Terminal that will result from the proposed project. For example, I believe the development of the proposed project includes the removal of the existing rail lines and the reopening of Concord St. If so, this information needs to be described in the supporting information for your permit application and considered in our evaluation of the proposed project."); *id.* (Corps stating "Information about the potential impacts of these alternatives on waters of the U.S. will be helpful when we are evaluating the proposed project.").

¹⁰⁹ SCPA 017221.

and indirect environmental impacts.”¹¹⁰ See 40 C.F.R. §§ 1502.14(d), 1508.25(b); *N.C. Wildlife Fed’n v. N.C. Dep’t of Transp.*, 677 F.3d 596, 602 (4th Cir. 2012). This section identifies a number of alternatives that the Corps should consider and compare to SPA’s terminal as proposed. It is important to note that any one alternative may not address all environmental or historic impacts, such that an alternative location for the terminal may still require additional measures to mitigate environmental impacts.

1. Veterans Terminal

SPA’s Veterans Terminal in North Charleston is a viable alternative location to host cruise operations. Veterans Terminal is currently “underutilized,” and was identified as a potential target for expansion of ro-ro operations that moved to Columbus Street Terminal instead in 2012.¹¹¹ Additionally, one of the bulkheads collapsed in 2012 and has not been fixed, so SPA will already have to devote construction capital to Veterans Terminal soon.¹¹² In all dimensions, the facilities at Veterans Terminal can accommodate most any cruise ship—including the largest ship in Carnival’s fleet.¹¹³

In contrast to Union Pier Terminal, Veterans Terminal is located at a safe distance from the Charleston Historic District. The visual impacts that would result from locating a new terminal at Union Pier would be significantly minimized by locating the cruise ships at Veterans Terminal. While some environmental concerns would still exist with cruise operations at Veterans Terminal, many of the localized pollution concerns—like the diesel air pollution—would be minimized by locating the cruise terminal farther way from densely residential downtown Charleston.

The only limitation is the height of the Ravenel Bridge across the Cooper River, but the Carnival ships SPA currently plans to bring to Charleston—the Carnival *Fantasy* and Carnival *Ecstasy*—can fit under the bridge even at high tide.¹¹⁴ In this context, SPA’s position that most cruise ships cannot go under Ravenel Bridge is misleading and incorrect.¹¹⁵ The cruise ships that have and are planned to visit Charleston can fit under the bridge. The ships that cannot fit under the bridge are larger than the ships that have home-based or are planned to home-base in Charleston. Thus, SPA can continue its cruise business as planned at Veterans Terminal, making Veterans Terminal a viable alternative that fulfills the primary purpose of the project as proposed

¹¹⁰ Letter from Blan Holman, Southern Environmental Law Center, to Lt. Col. Litz, U.S. Army Corps of Engineers at 8 (December 31, 2014).

¹¹¹ McDermott, *BMW drives Charleston's need for port space*, *supra* note 56.

¹¹² Tyrone Richardson, *Bulkhead collapses at Veterans Terminal in North Charleston*, CHARLESTON POST & COURIER, Oct. 18, 2012, <http://www.postandcourier.com/article/20121018/PC05/121019276/1177/bulkhead-collapses-at-veterans-terminal-in-north-charleston>.

¹¹³ *Compare* Port of Charleston, Veterans Terminal Quick Reference Sheet, http://www.scspace.com/Cargo/Facilities/charleston/terminals/veterans_quickref.pdf (showing a maximum pier length, of 1250 feet and maximum of draft 35 feet) *with* Carnival Dream Fact Sheet, <http://carnival-news.com/2013/01/17/fact-sheet-carnival-dream-2/> (showing Carnival’s largest ship with a length of 1004 feet and draft as 27 feet).

¹¹⁴ The Ravenel Bridge allows 186 feet of clearance at high tide, and the Carnival Fantasy class ships have an air draft of 177.8 feet. See SCPA 23597.

¹¹⁵ SCPA 010723.

that could potentially reduce environmental and historic impacts. The Corps should compare locating the terminal at the Veterans Terminal to the proposed location at Union Pier.

2. Columbus Street Terminal

SPA's Columbus Street Terminal in Charleston, below the Ravenel Bridge, is a viable alternative location to host cruise operations. Like Veterans Terminal, the facilities at Columbus Street are more than adequate to host most every cruise ship—including the largest ships in Carnival's fleet.¹¹⁶ And like Veterans Terminal, locating the cruise terminal at the Columbus Street Terminal would significantly reduce historic and localized environmental impacts by moving cruise operations farther away from the residential Charleston Historic District. Unlike Veterans Terminal, Columbus Street Terminal is not limited by the height restrictions of the Ravenel Bridge.¹¹⁷

SPA generally offers two reasons why cruise operations cannot be located at Columbus Street Terminal. Both are incorrect and misleading.

First, SPA argues that cruise operations cannot be located at Columbus Street Terminal because all of its space is needed to handle ro-ro cargo operations.¹¹⁸ This argument is contradicted by numerous internal SPA documents, submitted to the Corps as part of this application, concluding that Columbus Street Terminal can handle both ro-ro operations and cruise operations together.¹¹⁹ Other SPA documents show that locating the cruise terminal at Columbus Street, while slightly more expensive than at Union Pier, would provide the best value between the two.¹²⁰ Even further, SPA documents show that the most valuable strategy is to ultimately move ro-ro operations to Veterans Terminal farther up the Cooper River, providing space for ro-ro operations to grow as well as space to locate cruise operations where they would yield the greatest value with the least impacts on the historic downtown communities: Columbus Street.¹²¹

Veterans Terminal has long been an option for ro-ro operations; for example, when ro-ro demand became too much for Union Pier, SPA first identified Veterans Terminal "as the most

¹¹⁶ Compare Port of Charleston, Columbus Street Terminal Quick Reference Sheet, http://www.scpa.com/Cargo/Facilities/charleston/terminals/columbus_st_quickref.pdf (showing berth length of 3500 feet and maximum of draft 35 feet) with Carnival Dream Fact Sheet, <http://carnival-news.com/2013/01/17/fact-sheet-carnival-dream-2/> (showing Carnival's largest ship with a length of 1004 feet and draft as 27 feet).

¹¹⁷ Port of Charleston, Columbus Street Terminal Quick Reference Sheet, *supra* note 117 (showing no height restriction).

¹¹⁸ Wren, *Container cargo could return to Port of Charleston's Columbus St. Terminal*, *supra* note 45.

¹¹⁹ SCPA 008297-99 (SPA drawings showing a cruise terminal at south side of Columbus Street Terminal); SCPA 0010709 (SPA financial planning documents locating both ro-ro cargo operations and cruise terminal at Columbus Street); SCPA 010717 (SPA internal communications concluding that it is viable to locate both ro-ro cargo operations and cruise at Columbus Street Terminal: "therefore, we would be able to make this area work" for both operations) SCPA 010720-10721 (SPA engineering drawings locating cruise terminal at Columbus Street Terminal).

¹²⁰ SCPA 0010703 (SPA matrix illustrating that highest value capital option is to move cruise to Columbus Street Terminal and ro-ro operations to Veterans Terminal); SCPA 010732 (SPA spreadsheet illustrating that locating a cruise terminal at Columbus Street Terminal is only slightly more expensive than at locating the cruise terminal at Union Pier Terminal).

¹²¹ SCPA 010737.

likely relief valve” for locating BMW’s export operations, and BMW did not object to moving its export operations to that location.¹²² SPA has explained that one of the advantages of ro-ro operations is that it can be “easily relocated” to free up terminal space for other uses.¹²³ In total, the evidence currently before the Corps shows that the cruise terminal can be located alongside ro-ro operations on Columbus Street Terminal, and that even if there was a lack of space on the Columbus Street Terminal, ro-ro operations could be moved to Veterans Street Terminal to allow cruise operations to operate at the Columbus Terminal where it would provide the greatest value with less impact to the Charleston community than the proposed plan.

Second, SPA argues that Columbus Street Terminal is unsuited for cruise operations because “cruise ships nearly always dock starboard-side (or right side) to the dock,” and the tides and currents make it difficult to dock starboard side at Columbus Street.¹²⁴ This is incorrect, and SPA’s documents submitted to the Corps as part of this application show that Carnival explicitly requested to dock port-side.¹²⁵ SPA explains that any other maneuvering and navigational concerns with using Columbus Street Terminal are resolved by using tugs.¹²⁶

In sum, Columbus Street Terminal is a viable alternative that fulfills the primary purpose of the project as proposed in way that could reduce environmental and historic impacts of the project, while at the same time supporting the best path identified by SPA’s own documents to grow cargo operations. SPA’s reasons for arguing that Columbus Street Terminal is not a viable alternative to locate cruise operations are undercut by their own documents submitted as part of this application. While it is not the Corps’ role to tell SPA how to run the port, it is the Corps’ role to guard the public interest by prohibiting SPA from operating a federally protected resource based on its sub-optimal, short-term preferences at the expense of the neighboring residents. The Corps should compare locating the terminal at the Columbus Street Terminal to the proposed location at Union Pier.

3. Expanding Building 325 on Union Pier Terminal

Expanding the existing cruise terminal at Building 325 is a viable alternative to the proposed location at Building 322 on Union Pier that should be evaluated.¹²⁷ SPA has argued that expanding the existing cruise terminal as a poor alternative for two reasons, but both appear misleading. First, SPA argues that expanding the existing cruise terminal would result in worse impacts because cargo operations would continue at Union Pier when they would not if the new terminal was built at Building 322. Second, SPA argues that expanding Building 325 would result in greater impacts to jurisdictional wetlands than building a new terminal at Building 322.

¹²² McDermott, *BMW drives Charleston’s need for port space*, *supra* at note 56 (reporting that, when asked about relocating export operations from Union Pier to Veterans Terminal, BMW’s representative responded: “Basically, the business needs to be managed by the port, not by us.”)

¹²³ SCPA 010734 (“Ro-ro can more easily be relocated and the area returned to other cargo operations”).

¹²⁴ SCPA 019971.

¹²⁵ SCPA 012034.

¹²⁶ SCPA 010723. Cruise ships generally use tug boats to assist where docking is made difficult by weather or port design. For example, Venice requires all cruise ships to use tug boats when navigating its harbor. *See* Giovanni Legorano, *Venice Looks to Calm Cruise Ship Waves*, THE WASHINGTON POST, June 21, 2013, <http://www.wsj.com/articles/SB10001424127887323300004578557293160084744>.

¹²⁷ SCPA 013116 (SPA illustration showing cruise terminal redevelopment at existing location).

Both points ignore the possibility of essentially implementing SPA's overall plan—remove cargo operations and restore the portion of Union Pier not used by the cruise business—in the reverse, allowing SPA to restore the northern end of Union Pier to its traditional wetlands.

SPA's intends to end all cargo operations at Union Pier, so there is no reason to use existing cargo operations as an excuse to prohibit consideration of an alternative that allows for redevelopment of the northern end of Union Pier instead of the southern end. The northern end of Union Pier extends out into the Cooper River, covering a large area of waters of the United States that were originally wetlands. Updating Building 325 and restoring the northern portion of Union Pier may restore substantially more wetlands than under the proposed plan, while also avoiding traffic congestion and other impacts from the residential and commercial development planned on the southern on Union Pier in the proposed plan. Expanding Building 325 to continue cruise operations and restoring the wetlands at the northern end of Union Pier is a viable alternative that satisfies the primary purpose of the project as proposed and may result in an overall increase in wetlands and ecological benefits. The Corps should compare the project as proposed with updating Building 325 and restoring the northern portion of Union Pier to its original wetlands.

4. Shortening the Wharf at Either Building 322 or Building 325 to Accommodate Only One Cruise Ship

The Corps should also consider alternatives to the project that would shorten the cruise terminal's wharf length to only accommodate one ship. SPA has stated that the purpose of its proposed project is to host no more than one cruise ship at a time in Charleston.¹²⁸ However, its current proposed terminal plans to service about 2500 feet of docking space—enough to fit the largest ship in Carnival's fleet twice.¹²⁹ Statements in the record make it reasonably foreseeable that SPA will host two cruise ships at a new terminal rather than one, as they portray.¹³⁰ And, as discussed above, SPA's voluntary commitment to only service one cruise ship at a time is completely unenforceable and cannot be relied upon in the Corps' consideration of impacts.¹³¹ So long as it is reasonably foreseeable that SPA's proposed terminal will service two cruise ships, the law requires the Corps to assess the impacts of serving two cruise ships at once in Charleston. Given the significant impacts of servicing only one cruise ship at a time discussed above, servicing two at once will be extraordinarily damaging to Charleston's history and natural environment.

Altering the project as proposed to accommodate a smaller wharf—such as 800 feet or 1000 feet—could potentially mitigate the significant impacts of hosting two ships at once. Reducing the available wharf space would also allow for restoration of wetlands or waters of the United States, offering other ecological benefits when compared to the project as proposed.

¹²⁸ See SPA, Union Pier Terminal, Frequency Asked Questions, <http://www.scsipa.com/UnionPierPlan/faq.html#q9>, (Except in “extraordinary circumstances” like “extreme weather conditions” or “a ship in distress,” “[t]here will be only one terminal capable of handling one embarking/debarking ship at a time.”).

¹²⁹ See Carnival Dream Fact Sheet, <http://carnival-news.com/2013/01/17/fact-sheet-carnival-dream-2/> (showing Carnival's largest ship with a length of 1004 feet and draft as 27 feet).

¹³⁰ SCPA 006245 (stating that terminal should be designed to handle two cruise vessels at once, or in “immediate sequence”; SCPA 008670 (citing cost of shoreside power for two berths rather than one).

¹³¹ See *supra* Part I.A.

Thus, the Corps should study alternatives to the project as proposed that shorten the length of the wharf and restore waters of the United States.

5. No Action Alternative

Based on SPA's statements currently in the record before the Corps, the no action alternative may mean the end of cruise operations in Charleston.¹³² The Corps is legally required to consider a no action alternative to SPA's terminal as proposed. 40 C.F.R. § 1502.14(d). Taking no action means that cruise operations must occur at the existing terminal at Building 325, but the existing terminal operates in violation of the federal law. As SPA has explained in its application to the Corps, the cruise operations in Charleston are "conditionally authorized" by U.S. Customs and Border Protection based on an understanding that SPA will build a larger cruise terminal with enough space to accommodate federal security personnel and procedures.¹³³ Those circumstances have not changed. Without expansion or a new terminal, the current terminal is physically unable to meet federal security requirements and cruise operations cannot continue.¹³⁴ Thus, the impacts to "important historic, cultural and natural aspects of our national heritage" that NEPA requires the Corps to consider under the no action alternative are positive.

Further, the Corps should study whether the no action alternative would result in greater benefits to local Charleston community than SPA's proposed project. Regulations provide that Corps "may make an independent review of the need for the project from the perspective of the overall public interest," particularly the "economic benefits . . . to *the local community*" through factors like "employment, tax revenues, community cohesion, community services, and property values." 30 C.F.R. § 320.4(q) (emphasis added). As noted earlier in this letter, the cruise business is only a tiny part of SPA's overall business, such that the growth of the port will not likely be impacted under the no action alternative.¹³⁵ Likewise, the business accounts for only a small fraction of the tourists that visit Charleston.¹³⁶

In contrast, studies suggest that redeveloping all of Union Pier Terminal would yield greater benefits to the Charleston community than continuing cruise operations there.¹³⁷ Economic analysis show that cruise operations devalue nearby residential and commercial facilities, and that the Charleston community would see greater economic return, more community cohesion, and higher property values if Union Pier Terminal was redeveloped as residential and commercial property, either because cruise operations were moved elsewhere or because cruise operations could not continue at Union Pier in compliance with federal law.¹³⁸

Thus, the Corps should study whether, under the no action alternative would dramatically reduce the ongoing environmental and historic impacts of existing cruise operations without significant impact to SPA's port operations, and result greater economic benefit to the public than the proposed plan.

¹³² See, e.g., SCPA 012840 ("Security, Market Demands New Cruise Terminal")

¹³³ See *supra* note 4 and accompanying text.

¹³⁴ *Id.*

¹³⁵ See *supra* note 3 and accompanying text.

¹³⁶ *Id.*

¹³⁷ See Dover Kohl Study (May 2011) (attached).

¹³⁸ *Id.*

G. Limits on the frequency of cruise ship visits are required to guarantee public access to greenway and parks

The Union Pier Concept Plan will dedicate of certain parts of Union Pier Terminal as public lands and greenway.¹³⁹ This greenway would connect with the greater East Coast Greenway, and run along the waterside wharf of the cruise terminal. However, because of security requirements, this greenway and certain public spaces will be closed to the public when cruise ships are docked.¹⁴⁰

Even under the most conservative numbers, these public spaces will be closed often. SPA expects to host at least 104 cruise ship visits a year, eliminating public access about a third of the year. Additionally, cruise ships dock to unload passengers at about 7 in the morning and stay through the late afternoon, closing the greenway during peak commute times and for those who want exercise or use the public space in the afternoon. Further, cruise schedules are irregular and cruise ships arrive on different days each week, making it difficult for any resident to plan their use of the greenway or public spaces around cruise operations. Growth in the frequency of the cruise business will further limit public access to the greenway and other spaces dedicated in the plan.

As a result, the benefits of the public spaces dedicated in SPA's proposed plan are dependent on limits controlling the frequency of cruise visits to Charleston. In order to consider the public spaces and greenways included in SPA's plan as a benefit for the public interest, the Corps must also consider including binding permit limits on the frequency of cruise visits in order to ensure regular public access to those resources.

II. Both the Preservation Society of Charleston and the South Carolina Coastal Conservation League request consulting party status for the Corps' Section 106 Consultation process

The Public Notice recognizes the Corps' obligation to conduct a Section 106 consultation process under the National Historic Preservation Act ("NHPA"), and states that "[t]he District Engineer has not made a determination of effect regarding potential impacts associated with the proposed undertaking" and "the Corps plans to initiate NHPA consultation for the" proposed cruise terminal. We read the notice as stating that the Section 106 consultation process has not yet started. We request that the Corps tell us if we are wrong.

Both the Preservation Society and the League have substantial information, evidence, and comments regarding the impacts of SPA's proposed cruise terminal on Charleston's historic buildings and character in addition to what is contained in this comment letter that they expect to present to the Corps during the Section 106 consultation process after the close of the comment period on this public notice. We request that the Corps tell us if that is incorrect.

¹³⁹ Union Pier Concept Plan, *supra* note 15 at VI.26.

¹⁴⁰ *Id.* at VI.4 ("On those days when the cruise ships are not in port, public access along the water's edge can . . . complet[e] a valuable missing link in the waterfront trail along Charleston's urban edge.").

We also specifically request that the Corps notify us when the Section 106 consultation process had begun, so that the Preservation Society and League can present their information on the cruise terminal's historic impacts at the proper time.

Both the Preservation Society and League also request consulting party status for the Section 106 consultation of the proposed cruise terminal, as solicited by the Public Notice. We also request notice of your decision regarding the Preservation Society and Leagues' status as consulting parties.

III. The Corps should hold a public hearing before issuing this permit

Finally, the Public Notice states that “[a]ny person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application,” and that “[r]equests for a public hearing shall state, with particularity, the reasons for holding a public hearing.” The Corps regulations provide that “Requests for a public hearing . . . shall be granted, unless the district engineer determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing,” and that “[i]n case of doubt, a public hearing shall be held.” 33 C.F.R. § 327.4(b), (c).

We request that the Corps hold a public hearing to consider this application. The Corps should hold a public hearing because this project is very controversial to the Charleston community, has been the subject of litigation and national news coverage, and the overall impacts and scope of the proposed project are hotly contested by the applicant and impacted communities. The years long debates, national news coverage, and substantial litigation show that the issues regarding SPA's proposed cruise terminal are not insubstantial. As an issue of substantial public concern, we respectfully submit there is a valid interest to be served by a hearing.

Thank you for the opportunity to submit these comments. Please do not hesitate to contact us if you would like to discuss our comments in greater detail.

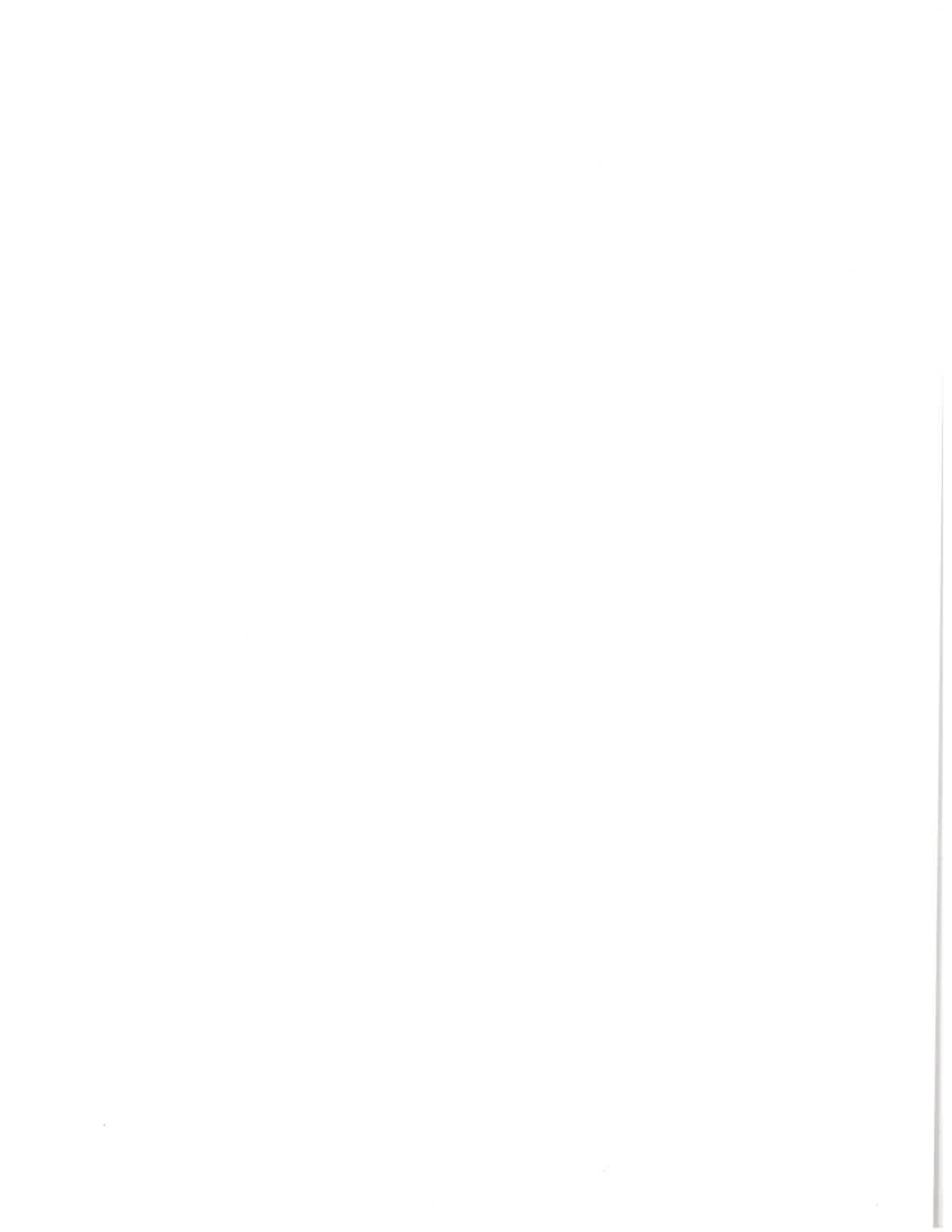
Very truly yours,



Wyatt G. Sassman

J. Blanding Holman

SOUTHERN ENVIRONMENTAL LAW CENTER



JUN 07 2001

Memorandum of Agreement
among
the United States Army Corps of Engineers, New York District,
the New York State Historic Preservation Office,
the Advisory Council on Historic Preservation
and
the Athens Generating Company, L.P.
regarding
the Athens Generating Facility,
Athens, Greene County, New York

WHEREAS, pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344) and Section 10 of the Rivers and Harbors Act (33 U.S.C. 403), the Athens Generating Company, L.P. (Athens Generating) has applied for a permit from the United States Army Corps of Engineers, New York District (Corps), Permit Application Number 1997-16040-YM, to authorize activities in support of the construction of a natural gas-fired electric generating facility and related gas, water, and electrical interconnects (together, the Facility or the Project) in Greene County, New York; and

WHEREAS, the Corps has consulted with the New York State Office of Parks, Recreation, and Historic Preservation, which serves as the State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation (Council) in accordance with Section 106 of the National Historic Preservation Act (16 U.S.C. 470f), and its implementing regulations, "Protection of Historic Properties" (36 CFR Part 800), and the Corps' regulation, 33 CFR Part 325, Appendix C; and

WHEREAS, the Corps and the SHPO concur that the Area of Potential Effect (APE) for visual impacts to historic properties is defined as the area within a five mile radius from the center of the Facility site; and

WHEREAS, the Corps, in consultation with the SHPO, has determined that the Facility in Athens, Greene County, New York, as described in the Corps Public Notice dated August 4, 1999 (Application No. 1997-16040-YM) and modified to include dry cooling technology as described in the drawings dated August 22 and 28, and September 1, 2000, will have an adverse effect on historic properties; and

WHEREAS, Athens Generating has agreed to fund a \$2.5 million "Catskill/Olana Viewshed Mitigation Trust" to be used to carry out projects that preserve and enhance the scenic beauty of the Hudson River Valley in, near or affecting the Catskill-Olana Scenic Area of Statewide Significance so as to mitigate and off-set the Facility's visual impacts; and

WHEREAS, Athens Generating will donate in excess of 100 acres of land to two conservation groups, the New York State Conservation Council and the Greene County Soil and Water Conservation District, including land along the Hudson River just north of the site of the Project's Pump House; and

WHEREAS, the Corps issued public notices for the Project on August 4, 1999 and September 27, 1999; held a public hearing on the Project's permit application on November 3, 1999; and has received written comments and oral testimony as part of its public interest review and historic preservation process; and

WHEREAS, the Project received a Certificate of Environmental Compatibility and Public Need from the New York State Board on Electric Generation Siting and the Environment (Siting Board) on June 15, 2000; and

WHEREAS, the Corps, in a letter dated January 26, 2001, invited the Council to participate in consultation to resolve adverse effects pursuant to 36 CFR 800.6(a)(1); and

WHEREAS, the Corps, in a letter dated February 16, 2001, invited the National Park Service (NPS) to participate in consultation to resolve adverse effects pursuant to 36 CFR 800.10(c); and

WHEREAS, Athens Generating has also participated in the consultation and has agreed to be a signatory to this Agreement; and

WHEREAS, the Corps received written requests from organizations and individuals with an interest in the historic preservation process to participate in the Section 106 review process, and the Corps acknowledged all written requests by inviting the Athens Architectural Workshop, the National Trust for Historic Preservation, Scenic Hudson, Citizens for the Hudson Valley, the Preservation League of New York State, the Village of Athens, the Olana Partnership, the Friends of Hudson, Stand Together Oppose Power Plant (STOPP), Hudson River Heritage, Property Owners of the Athens Lower Village Historic District, Property Owners of Brick Row, the Stockbridge-Munsee Band of Mohican Indians, Ian Nitschke, Mark Teague, Walter Pogliani, Jacqueline Dunn, Jay Carlisle and Janessa Nisley, Roger Downs, Andrea Smallwood, and Nicholas Nicholson to become consulting parties; and

WHEREAS, the Corps has invited all consulting parties to concur in this Agreement;

NOW, THEREFORE, the Corps, the Council, the SHPO, and Athens Generating enter into this Agreement pursuant to 36 CFR 800.6(b)(2), with the understanding that the undertaking covered by this Agreement shall be implemented in accordance with the following conditions in order to avoid, mitigate and minimize the effect of the undertaking on historic properties as is required by 36 CFR 800.6(a) and with the understanding that the execution and implementation of this Agreement satisfies the Corps' responsibilities under Section 106.

STIPULATIONS

Athens Generating shall construct and operate the Facility in compliance with the following conditions, which shall be included as special conditions of a Corps permit, if a permit is issued.

I. Design and Construction

A. Cooling and Exhaust Technology

1. In accordance with the Certificate of Environmental Compatibility and Public Need issued by the Siting Board dated June 15, 2000, Athens Generating shall install and use stack heaters or other alternate mitigation technology (such as the use of heat recovery steam generators to raise stack temperatures) designed for daily operation from between one-half hour before sunrise and one-half hour after sunset at such time as a visible exhaust stack plume might occur, if distillate oil is burned in any unit.
2. Within 180 days of the effective date of a Corps permit, if issued, Athens Generating shall submit to the Corps and the SHPO a plan for monitoring and reporting any visible plumes that may occur from the exhaust stacks. The plan shall include a schedule for reporting, visual assessments of seasonal plume visibility, criteria for establishing adverse visual impacts, and appropriate options for mitigation of impacts.
3. Athens Generating shall design, construct and operate the Facility using dry cooling technology. Combustion exhaust stacks will be constructed no taller than 180 feet above their concrete foundation (i.e., a maximum stack height of 359 feet above mean sea level).

B. Facility Design

1. Exterior Treatment

The Facility shall be constructed using low-glare, neutral colored building materials. The Facility shall be "terra brown" and the color of the roofs of the buildings shall be "hunter green". These colors refer to the Butler color chart found in Exhibit 281 of the Evidentiary Hearing that considered the Athens Generating Siting Board Application. An architectural drawing and detail plan shall be submitted to the SHPO and the Corps for review and approval with respect to building material and colors, prior to the commencement of construction of the buildings.

2. Electrical Interconnects

Non-specular conductors shall be required for all electrical interconnects and Corten steel pole structures shall be used for all electrical interconnects.

3. Pump House

The Pump House for the Project shall be constructed using typical residential finish materials or other materials as approved by the Corps and the SHPO. The completed Pump House shall be landscaped with materials consistent with local surroundings. A plan showing architectural and landscaping details for the Pump House shall be developed in consultation with the SHPO and approved by the SHPO and the Corps prior to the construction of the Pump House. The completed Pump House shall be landscaped with materials consistent with the local surroundings.

4. Water and Utility Lines

Plans for the water pipeline route shall include visual impact mitigation measures addressing:

- a. routing changes north of County Route 74 and east of New York State Route 385; and
- b. the minimization of the clearing width affected by the routing changes noted above.
- c. Construction plans shall indicate measures for minimizing the clearing of vegetation necessary to accommodate the water pipeline at the crest of the hill, 500 feet west of the Pump House.

5. Lighting

- a. The final Site Plan for the Project shall provide details to include measures to prevent off-site glare by using full-cutoff fixtures on all exterior area lights; provide for task-lighting of component areas as feasible; and demonstrate that design illumination conforms to applicable worker safety requirements for work area lighting while minimizing off-site lighting impacts.
- b. The United States Federal Aviation Administration (FAA) does not require aviation warning lights for the current design and no such lighting will be installed. If the FAA subsequently requires the use of aviation warning lights, Athens Generating shall coordinate compliance of this requirement with the SHPO and the Corps.

6. Noise

Athens Generating shall design the Facility to meet the following acoustic design goals:

<u>Direction of Receptor from Source</u>	<u>Location</u>	<u>Acoustic Design Goal</u>
North	Schoharie Turnpike	41 dBA
East(1)	Flats Extension Road	40 dBA
East(2)	Flats Road	40 dBA
South	Leeds-Athens Road	46 dBA
West	Route 9W	46 dBA
West	Residence 290' from Pump House	35 dBA

Athens Generating shall submit to the Corps and the SHPO a post construction report by an acoustical engineer to demonstrate that the Project complies with the acoustic design goals set forth above within six months of commencing operation of the Facility.

C. Review

Athens Generating shall provide each plan referenced above in Stipulation I to the SHPO, the Corps and each concurring party. Each concurring party shall provide any comments in writing to the SHPO and the Corps within seven (7) days of receipt of each plan. The SHPO shall review each plan and provide its determination in writing to the Corps within fifteen (15) days of receipt of each plan. The Corps shall review each plan and provide its determination in writing to Athens Generating within 21 days of receipt of each plan.

II. Archaeological Resources

- A. Athens Generating, in consultation with the Corps and the SHPO, shall develop a Cultural Resource Management Plan that will outline the measures to protect identified National Register-eligible archaeological sites during the construction and operation of the Facility, including pipelines and transmission lines. No ground disturbance shall commence prior to receipt of written approval of this plan from the Corps and the SHPO.
- B. The boundaries of the archaeological sites identified by Athens Generating as JMA-4, JMA-7, JMA-16, CA: P-3 and CA: P-8 and the significant portions of the archaeological sites identified as JMA-1, JMA-2, JMA-6, JMA-10, JMA-11 shall be delineated on the Project plans as "Environmentally Sensitive Areas" and clearly marked as avoidance areas during the construction and operation of the Facility. Temporary fencing shall be installed to protect these areas during construction.

- C. Siltation fencing shall be installed and maintained, in effective operating order, between archaeological sites and upgradient work areas during Facility construction, to reduce the risk of site disturbance that could be caused by surface runoff, erosion and sedimentation.
- D. An Unanticipated Discovery Plan shall be prepared to provide protection in the event that cultural resources are encountered during construction. The Plan shall include the retention of a qualified archaeologist throughout the period of ground disturbance associated with construction in the event that cultural resources are encountered or adjacent archaeological sites are affected by Facility activities. The Plan will also include procedures to evaluate unanticipated discoveries, to develop appropriate treatment plans for identified resources and to coordinate Corps and SHPO reviews and approvals. The Plan will be submitted to the Corps and the SHPO for review and approval prior to the start of ground disturbance.

III. Facility Landscaping

A Tree Protection Plan shall be developed by a certified professional arborist for the Facility, the Pump House, and all access roads. The Tree Protection Plan shall be included in the appropriate design and construction plans and shall include provisions for tree protection, including boring, root pruning, soil compaction prevention, and restoration measures appropriate for ensuring the health and vigor of the trees important for visual mitigation at key locations.

- A. Athens Generating shall preserve existing on-site trees to the extent practicable during the construction of the Facility to provide a buffer area. To the extent practicable, an effective wooded buffer shall be maintained along all sides of the Facility and the access road during plant operations. Protected trees and buffers shall be tagged and/or fenced prior to the start of the construction of the access road.
- B. Tree clearing for water pipeline construction within 50 feet of New York Route 385 shall be limited to a maximum width of 25 feet to limit visual impacts. The area shall be delineated and staked prior to construction.
- C. Tree clearing for the water pipeline construction from the Leeds-Athens Road to the Niagara Mohawk Power Corporation access road shall be limited to a maximum width of 50 feet.
- D. Tree clearing for water pipeline construction from the Pump House to the crest of the hill west of the Pump House shall be limited to a maximum width of 50 feet.
- E. Prior to commencement of final landscaping of the Facility entrance, an entrance landscaping/sign plan shall be prepared.

- F. Athens Generating shall provide copies of each plan referenced in Stipulation III to the SHPO, the Corps and each concurring party. Each concurring party shall provide any comments in writing to the SHPO and the Corps within seven (7) days of receipt of each plan. The SHPO shall review each plan and provide its determination in writing to the Corps within fifteen (15) days of receipt of each plan. The Corps shall review each plan and provide its determination in writing to Athens Generating within 21 days of receipt of each plan.

IV. Historic Resources

- A. Within 90 days of the effective date of a Corps permit, if issued, Athens Generating, in consultation with the SHPO, shall develop a Regional and Community Historic Preservation Benefit Plan for the enhancement of historic properties. The Plan shall set aside \$750,000 for the Olana State Historic Site, \$250,000 for the Thomas Cole House, and a \$1,000,000 fund for current and prospective public-access historic sites in Greene and Columbia Counties, including established historic districts within the Town of Athens. Priority shall be made for properties within the Project's APE. The plan shall include the following provisions:
1. Within 90 days of the Plan's approval, a lump sum of \$2,000,000 shall be deposited in a Natural Heritage Trust (NHT) account.¹
 2. Of the \$2,000,000, \$750,000 shall be set aside for restoration projects on the historic buildings or landscape at the Olana State Historic Site and \$250,000 shall be set aside for the Thomas Cole House. The remaining funds, totaling \$1,000,000 plus accrued interest, shall be awarded in the form of grants within five years of the commencement of the operations of the Facility. All grants shall be disbursed as 50/50 matching grants. Grantees' contributions may include in-kind services. Projects funded through the grant program must be within Greene or Columbia Counties, with preference given to projects within the APE. Two categories of properties are eligible for such grants: (1) eligible or registered historic sites that are owned/operated by the state or federal government, municipalities, or not-for-profit organizations and open to the public on a regular basis or will be open pending the completion of the funded project, are eligible for restoration grants or grants for interpretation or heritage tourism programs; and (2) local governments with jurisdiction over established Historic Districts in the Town of Athens, are eligible for grants for historic preservation façade programs, Main Street initiatives, waterfront revitalization efforts, or revolving loan funds or other economic incentive programs for the owners of historic properties.

¹ The NHT is a corporation created to administer the receipt and distribution of private gifts, devises, and bequests donated to further conservation, outdoor recreation and historic preservation purposes. The NHT can receive 5% of the interest accumulated as an administrative fee and 95% of the interest will be distributed along with the principal for any grant it administers under this Agreement.

3. A seven member Board of Trustees composed of the Commissioner of the New York State Office of Parks, Recreation and Historic Preservation, the Chairman of the New York State Board for Historic Preservation, the Chairman of the Hudson Valley Greenway Conservancy, an officer of the Greene County Historical Society, an officer of the Columbia County Historical Society, the Executive Director of the Hudson Valley Greenway Communities Council, and a representative from Athens Generating shall determine grant awards.

B. Within 90 days of the effective date of a Corps permit, if issued, Athens Generating shall submit a Landscape Planting and Restoration Plan to the Corps, the Council, and the SHPO for review and approval. The plan shall include funding for plantings at historic properties within the APE as necessary to mitigate adverse visual impacts due to construction and operation of the Project. The Plan shall include a fund not to exceed \$275,000.00 to be provided by Athens Generating for off-site planting to screen views of the Facility from National Register-eligible or listed properties that are not publicly-owned. The Plan shall establish an application process for accessing this fund, provide a method for the fund's disbursement, set forth measures to ensure the expenditures are made in accordance with this Agreement, and identify a limit for administrative expenses. The Plan shall include recommendations for appropriate planting and maintenance specifications and indicate the use of quality stock of native species and cultivars appropriate to the site. The application process shall be implemented according to the following stipulations:

1. Before the Facility begins operation, Athens Generating shall update the existing historic buildings survey to identify historic properties within the APE not included on the original survey and to provide additional information on historic properties and other unevaluated historic properties in the survey. Athens Generating shall provide the updated survey to the SHPO, who will review the updated survey and compile a list of National Register eligible or listed properties based upon the updated survey. The historic properties list will be provided to the Corps and Athens Generating. This historic properties list will serve as a baseline for evaluating applications for the Landscape Planting and Restoration Plan. Applications for properties not on the list will be evaluated by SHPO for their National Register-eligibility on a case-by-case basis.
2. Before the Facility begins operation, Athens Generating shall publish a public notice in at least two local or regional newspapers, including the *Daily Mail* and the *Register Star*, announcing the availability of the funds and soliciting applications. Athens Generating shall provide a copy of the notice to the Corps, the SHPO and the concurring parties.
3. The public notice shall present the historic properties list, define the purpose of the fund, and state the geographic area covered by the fund, the information

required to apply, an Athens Generating contact name, address, and phone number for the applicants, a description of evaluation criteria, and an application deadline of no sooner than three months from the date of the public notice. Athens Generating shall be responsible for receiving, tracking and documenting all applications throughout the process.

4. The applications shall be evaluated and rated by the SHPO and an independent landscape architect retained by Athens Generating. The qualifications of the landscape architect shall meet the National Park Service standards defined in 36 CFR Part 61. The landscape architect shall be paid out of the fund. The landscape architect shall provide specifications for appropriate plantings and a budget estimate. The SHPO and landscape architect shall make site visits to the properties of applicants, as necessary, in order to evaluate the applications.
 5. The SHPO and landscape architect shall have nine months from the application deadline to evaluate and rate the applications. The evaluation criteria shall include:
 - a. the significance of the property;
 - b. the integrity of the property's setting;
 - c. the nature and severity of the visual impacts of the Project to the principal views from property; and
 - d. the likelihood that the landscaping would succeed in its intended purpose.
 6. Athens Generating shall disburse funds in accordance with the plan within three months of the completion of the SHPO's review of the applications. Athens Generating shall provide documentation of the disbursement of funds, including a list of properties and funded budgets, to the Corps, Council and SHPO. Athens Generating shall retain records of the program with the Landscaping Planting and Restoration Plan, for so long as this Agreement continues in effect.
- C. Within 90 days of the effective date of a Corps permit, if issued, Athens Generating shall provide a \$250,000 grant to the NHT for the benefit of the Village of Athens. This grant is to be used for historic preservation façade programs, Main Street initiatives, waterfront revitalization efforts, revolving loan funds, or other economic incentive programs for the owners of historic properties, as approved by the Board of Trustees, identified in Stipulation IV.A.3. This grant is in addition to the fund identified in Stipulation IV.A above.
- D. Athens Generating shall provide the plan referenced in Stipulation IV.A to the SHPO, the Corps and each concurring party. Each concurring party shall provide

any comments in writing to the SHPO and the Corps within seven (7) days of the receipt of the plan. The SHPO shall review the plan and provide its determination in writing to the Corps within fifteen (15) days of receipt of the plan. The Corps shall review the plan and provide its determination in writing to Athens Generating within 21 days of receipt of the plan.

- E. Athens Generating shall provide the plan referenced in Stipulation IV.B to the SHPO, the Council, the Corps and each concurring party. Each concurring party shall provide any comments in writing to the SHPO and the Corps within seven (7) days of receipt of the plan. The SHPO and the Council shall each review the plan and provide its determination in writing to the Corps within fifteen (15) days of receipt of the plan. The Corps shall review the plan and provide its determination in writing to Athens Generating within 21 days of receipt of the plan.

V. Decommissioning

- A. Before commencing any construction activities subject to the Corps' permit, if issued, other than research, surveying, boring or other related activities necessary to prepare final design plans or obtain permitting, Athens Generating shall provide to the SHPO and the Corps, the Siting Board's approval of the financial security arrangement found adequate to ensure the restoration of any disturbed areas in the event the Facility is not completed.
- B. Upon the commencement of commercial operation of the Facility, the security shall include funds to cover the cost of decommissioning, dismantling, closing or reusing the plant when the Facility has reached the end of its service life, as proposed by Athens Generating.
- C. These requirements are not intended to require that duplicative financial security be provided under Athens Generating's State and federal permits. Security provided under any State approvals, which meets the criteria stated in this stipulation, shall be deemed to satisfy these requirements.

VI. Reporting

- A. Athens Generating shall submit status reports on or before June 30 and December 31 of each year to the Corps, the SHPO, each concurring party, and the Council to summarize the measures it has taken to comply with the terms of this MOA. Reports shall be submitted so long as this Agreement remains in effect.
- B. For a period of five years from the effective date of a Corps permit, if issued, Athens Generating shall mail a semi-annual newsletter to all parties to this Agreement and all consulting parties, describing issues and activities undertaken by Athens Generating in furtherance of this Agreement. At a minimum, the newsletter shall describe the progress of Project construction, any archeological

discoveries made during construction, significant changes to Project design, if any, significant activity scheduled prior to the release of the subsequent newsletter, and, to the extent possible, activities carried out with funds provided pursuant to this Agreement. Athens Generating may consult with SHPO regarding the content of the newsletter where appropriate.

VII. Dispute Resolution

- A. The Corps, the SHPO, the Council and Athens Generating (the signatories) shall notify all other signatories in writing of any instance where a signatory to this agreement objects to the implementation of any of the stipulations set forth above. The Corps, the SHPO and Athens Generating shall consult to resolve the objection. If the Corps determines that the objection cannot be resolved, the Corps shall forward all documentation relevant to the dispute to the Council. Within 10 business days after receipt of such documentation, the Council shall either a) provide written recommendations relative to the dispute, or b) notify the Corps that it will comment in accordance with 36 C.F.R. Part 800.7(c). Any comment provided in response to such a request shall be taken into account by the Corps in accordance with 36 CFR Part 800 with reference to subject of the dispute.
- B. Any recommendations or comments provided by the Council shall be understood to pertain to the subject of the dispute. Athens Generating's responsibility to carry out all actions under this Agreement that are not the subject of the dispute shall remain unchanged.

VIII. Term of the Memorandum of Agreement

This Agreement shall remain in force from the date of its execution until five years following the commencement of any construction authorized by a Corps permit, if issued, unless the Corps, the SHPO and the Council agree otherwise.

IX. Amendments to the Memorandum of Agreement


This Memorandum of Agreement may be amended only upon agreement of the Corps, the SHPO, the Council and Athens Generating (the signatories). Any signatory may request an amendment and must provide no less than 30 calendar days written notification of its request to the other signatories. In such a case, the signatories to the Agreement shall consult to consider such amendments in a manner consistent with 36 CFR Part 800.

U.S. ARMY CORPS OF ENGINEERS, NEW YORK DISTRICT


Colonel, Corps of Engineers
District Engineers

14 May 01
Date


NEW YORK STATE HISTORIC PRESERVATION OFFICE



J. Winthrop Aldrich
Deputy Commissioner for Historic Pres.

11 May '01
Date

ADVISORY COUNCIL ON HISTORIC PRESERVATION



Gregory B. Sater

May 16, 2001
Date

ATHENS GENERATING COMPANY, LP



WILLIAM F. QUINN
VICE PRESIDENT

5-10-01
Date

I CONCUR WITH THE MEMORANDUM OF AGREEMENT AMONG THE U.S. ARMY CORPS OF ENGINEERS, THE NEW YORK STATE HISTORIC PRESERVATION OFFICE, THE ADVISORY COUNCIL ON HISTORIC PRESERVATION AND ATHENS GENERATING COMPANY EXECUTED ON MAY 16, 2001, REGARDING TREATMENT OF CULTURAL AND HISTORIC RESOURCES IN THE VICINITY OF THE ATHENS GENERATING PROJECT:

Date

**Old Colony Railroad Rehabilitation Project
Greenbush Line Restoration
Towns of Braintree, Cohasset, Hingham,
Scituate and Weymouth**

**Section 106 Consultation
Programmatic Agreement**

Programmatic Agreement (*Agreement*) by and among the United States Department of the Army, Corps of Engineers, New England District (*Corps*), the Massachusetts State Historic Preservation Officer (*SHPO*), the Advisory Council on Historic Preservation (*Advisory Council*), the Massachusetts Bay Transportation Authority (*MBTA*), and those Towns whose chief executive officer(s) may elect to execute this Agreement, as evidenced by their signature at the end hereof (the latter such parties referred to as the *Concurring Parties*).

Recitals

WHEREAS, 1, the MBTA proposes to restore commuter rail passenger service on the Old Colony railroad branch known as the Greenbush Line in the towns of Braintree, Weymouth, Hingham, Cohasset, and Scituate, Massachusetts (the *Greenbush Line Restoration Project* or *Project*).

WHEREAS, 2, the Corps, which is charged with regulating certain discharges of dredged or fill material to waters of the United States through a permit authorized pursuant to Section 404 of the Clean Water Act, has determined that portions of the Project's construction activities, including track work, certain station construction and certain construction or reconstruction of roadways associated with the Project, will occur in areas regulated by the Corps and thus requires that the Corps issue its Section 404 Permit under Section 404 (the *Section 404 Permit*).

WHEREAS, 3, in accordance with Section 106 of the National Historic Preservation Act (*NHPA*), 16 U.S.C. 470f (*Section 106*), and with regulations implementing Section 106 issued by the Advisory Council and codified at 36 C.F.R. Part 800, as amended (December 12, 2000) (*36 C.F.R Part 800*) and regulations issued by the Corps and codified at 33 C.F.R. Part 325, Appendix C, the Project subject to the Section 404 Permit constitutes the "undertaking" and is subject to Section 106 (the *Undertaking*).

WHEREAS, 4, in accordance with Section 106, the SHPO is responsible for consulting with and advising and assisting the Corps and the other parties and the public in the Section 106 process and, under Massachusetts General Laws, Chapter 9, Sections 26 et

seq. (the *Massachusetts Historical Commission Act*), and regulations implementing the Massachusetts Historical Commission Act at 950 C.M.R. Part 71, the Massachusetts Historical Commission is responsible for consulting the MBTA to resolve adverse effects of the Project and in addition, under M.G.L. Chapter 9, Sections 26A and 27C, and 950 C.M.R. Part 70, the Massachusetts State Archaeologist is responsible for overseeing and regulating the investigation and preservation of archaeological sites and specimens (*State Archaeologist*).

WHEREAS, 5, in furtherance of the requirements of Section 106 and of other provisions of the NHPA, including Section 110(f) which addresses avoidance or minimization of Adverse Effects on Historic Properties that are National Historic Landmarks (*Section 110(f)*), the Corps, based on information generated by the MBTA and by in others participating at the Corps' invitation in the Section 106 review process for the Project, and in consultation with SHPO, has determined the Area of Potential Effect associated with various impacts of the Project (*APE*), and has identified historic properties within the APE, as that term is defined in 36 C.F.R. 800.16(l) (*Historic Properties*).

WHEREAS, 6, the APE is graphically depicted on the U.S.G.S. topographical maps included in Appendix E of the *CE&M Report* (see WHEREAS 9, below).

WHEREAS, 7, MBTA, in consultation with the Corps, SHPO, the State Archaeologist, and other consulting parties has, as of the date of this Agreement, performed certain archaeological identification and evaluation surveys with respect to potential below-ground historic resources which may be adversely impacted by construction of the Project, which surveys are described in Archaeological Reports which are referenced at *Attachment A* to this Agreement, and certain additional investigations will be performed in the ordinary course of Project development as plans and designs are finalized.

WHEREAS, 8, based on the Section 106 consultation conducted by the Corps and on the information generated by the MBTA and others, which was reviewed and evaluated during the Section 106 consultations, the Corps, in consultation with SHPO and the other consulting parties, has applied the Advisory Council's criteria of adverse effect (see 36 C.F.R. 800.5(a)) and has found that the Greenbush Project will have Adverse Effects (as the term "*Adverse Effects*" is defined in 36 C.F.R. Part 800) on certain identified Historic Properties.

WHEREAS, 9, the Corps' determination of the APE, identification of Historic Properties within the APE, assessment of Adverse Effects and findings regarding the effects of the Project on Historic Properties have been documented, in a report prepared by the MBTA at the request of the Corps dated February __, 2001 and entitled "Cultural Resources - Comprehensive Effects and Mitigation Report - Braintree, Weymouth, Hingham, Cohasset and Scituate - Greenbush Line Section 106 Review - Final Environmental Impact Report - Old Colony Railroad Rehabilitation Project" (*CE&M Report*), which is attached to this Agreement at *Attachment B* and the Corps' determinations and findings in this regard have been further confirmed in the Corps' correspondences addressed to SHPO and circulated to the Section 106 consulting parties dated February 2, 2000, March 3, 2000, April 13, 2000,

May 11, 2000, June 6, 2000, June 6, 2000, and January 16, 2001, all of which are enclosed with the CE&M Report at its Appendix C.

WHEREAS, 10, the Corps findings of effects of the Project, including Adverse Effects, are specifically set forth in the CE&M Report at Chapter 4, Section C, and presented in tabular form at Table 4.1 of the CE&M Report.

WHEREAS, 11, the Corps, in consultation with SHPO and the other parties participating in the Section 106 review process, has determined that based on the Adverse Effects to Historic Properties which have been documented in the CE&M Report, certain measures to avoid, minimize or mitigate Adverse Effects on Historic Properties, as further described in such Report, should be incorporated as part of the Section 404 Permit, in accordance with and as set forth in this Agreement.

WHEREAS, 12, the specific measures to resolve Adverse Effects proposed with respect to each identified Historic Property for which an Adverse Effect has been determined is presented in tabular form at Appendix A to the CE&M Report.

WHEREAS, 13, as a result of the archaeological investigations conducted to date (see *Attachment C* to this Agreement), the MBTA has recommended and the Corps, SHPO and State Archaeologist have concurred (see correspondence from the Corps to SHPO dated October 18, 2000, which is included in the CE&M Report at Appendix C) that based on the project plans reviewed in such investigations, there will be Adverse Effects to the Cohasset Railroad Roundhouse Site in Cohasset Village, and that measures to resolve such Adverse Effects to this site are warranted, as further described in the CE&M Report (Chapter V. E. 4.b).

WHEREAS, 14, the plans for the Project, including proposed measures to resolve Adverse Effects on Historic Properties, which have been reviewed in the context of the Section 106 consultation evidenced in this Agreement, are depicted graphically on Plan sheets dated which are attached as Appendix D to the CE&M Report (*Project Plans*).

WHEREAS, 15, the Corps, SHPO and the MBTA have also undertaken, both within the Section 106 consultation and as part of the on-going review of environmental and other impacts required pursuant to the National Environmental Policy Act (*NEPA*), Section 404(b) of the Federal Clean Waters Act, the Massachusetts Environmental Policy Act (*MEPA*), and the Massachusetts Historical Commission Act, a concerted and good faith effort to resolve Adverse Effects to Historic Properties, including evaluation of alternatives to the proposed action, and consideration of various options to resolve Adverse Effects, including the development by MBTA of conceptual designs for the Project which incorporate design standards to preserve and protect Historic Properties, as further described in this Agreement and in the CE&M Report.

WHEREAS, 16, the MBTA's design standards for the Project include the development of plans and specifications which are protective of Historic Properties,

including certain Historic Preservation Design Guidelines which are referenced in the Stipulations under this Agreement, and including, among other provisions, standards proposed by the MBTA to enable the Project to be operated while avoiding the blowing of horns or whistles as trains approach Greenbush Line grade crossings, except in emergency or temporary situations, which the MBTA believes to be in accordance with prevailing policies of the Federal Railroad Administration (*FRA*) and applicable state law in this regard, it being understood that the MBTA must comply with federal and state laws and regulations concerning blowing of horns or whistles, including the Swift Act and any rules or regulations of the FRA eventually adopted to implement the Swift Act.

WHEREAS, 17, as part of the overall environmental as well as historic impact review and planning effort referenced above, MBTA has conducted separate planning discussions regarding measures to resolve Adverse Effects with the various localities within whose jurisdictions the Project will be completed, including discussions with the Towns of Braintree, Weymouth, Hingham, Cohasset and Scituate.

WHEREAS, 18, as a result of its discussions with Hingham, MBTA, Hingham and the Executive Office of Transportation and Construction (*EOTC*) reached consensus that certain measures to resolve Adverse Effects should be taken, specifically including, but not limited to, measures to resolve Adverse Effects on Historic Properties within the Lincoln National Register Historic District, and such consensus has been documented in the Memorandum of Understanding by and among Hingham, MBTA and EOTC, dated as of May 15, 2000 (*Hingham MOU*).

WHEREAS, 19, the Corps, SHPO, and Advisory Council did not participate in the MBTA's discussions with Hingham leading to the Hingham MOU, and the Hingham MOU is not a part of this Agreement, but certain of the items in the Hingham MOU have been included as Section 106 measures to resolve Adverse Effects and are incorporated as measures to resolve Adverse Effects, see Stipulation IX.A. and the CE&M Report at Appendices A, Location-Specific Mitigation, and D, Project Plans.

WHEREAS, 20, the Corps, in coordination with SHPO and MBTA, has undertaken public outreach efforts in support of the Section 106 consultation, such as extending invitations to participate in these consultations to various elected officials and appointed representatives of communities affected or potentially affected by the Project, the Tribal Historic Preservation Officer (THPO) for the Wampanoag-Aquinnah Tribe, including Native American representation such as the Executive Director of the Massachusetts Commission on Indian Affairs and have also conducted open public meetings in each of the five towns in which the Project right-of-way is located (Braintree, Cohasset, Hingham, Scituate and Weymouth) in order to obtain citizen comment on the proposed Project, on potential effects and Adverse Effects on Historic Properties occasioned by the Project, and on potential Measures to resolve Adverse Effects of such Effects and has considered these comments.

WHEREAS, 21, the Towns of Braintree, Cohasset, Hingham, Scituate and Weymouth have been invited to participate and have participated in the Section 106

consultation process and have been invited to concur in this Agreement, and certain, but not all, of these Towns have elected to concur in this Agreement as evidenced by their signatures at the end of this Agreement, it being understood that wherever reference is made in this Agreement to a Town, the authorized representatives for all purposes related to this Agreement shall be the Boards of Selectmen of the Towns of Braintree, Hingham, Cohasset and Scituate and the Mayor of the Town of Weymouth.

WHEREAS, 22, in accordance with Section 110(f), the Corps and the MBTA, to the maximum extent possible, and based on the Section 106 consultation, have undertaken planning of the Project to avoid and/or to minimize any harm to the two National Historic Landmarks within the Area of Potential Effect (the General Benjamin Lincoln House and the Old Ship Meetinghouse, both of which are located within the Lincoln National Register Historic District in Hingham, Massachusetts);

NOW, THEREFORE, the Corps, SHPO, the Advisory Council and the MBTA, together with the Concurring Parties executing this Agreement, agree that the Undertaking shall be implemented by MBTA in accordance with the following Stipulations in order to take into account the effects of the Project on Historic Properties.

Stipulations

The MBTA shall ensure that the measures set for the below are carried out, including without limitation, the measures to resolve Adverse Effects at the CE&M Report, Appendices A and D. The Corps shall include the provisions of this Programmatic Agreement as a term and condition of its Section 404 Permit, and the Corps has the authority to enforce the terms of this Agreement as a condition of the Section 404 Permit.

L GENERAL DESIGN STANDARDS TO RESOLVE PROJECT EFFECTS ON HISTORIC PROPERTIES

During completion of the Project design and engineering, MBTA shall incorporate the following design standards to ensure that Project components are responsive to the significant historic, architectural and engineering features of affected Historic Properties, to the extent feasible and with due regard for public safety, MBTA's operational requirements, cost and maintenance:

A. Avoid, minimize or mitigate effects of the rail infrastructure and operations on adjacent properties by balancing historic preservation values with Project goals and objectives.

B. Where the Project requires the rehabilitation of Historic Properties or other work intended to be within the scope of the U.S. Secretary of the Interior's *Standards for the Treatment of Historic Properties, including Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings* (for convenience called in this Agreement the "*U.S. Interior Secretary's Standards*"), such as (but not

limited to) the installation of sound insulation at an Historic Property, MBTA shall adhere to the U.S. Interior Secretary's Standards to the extent feasible.

C. Ensure compatibility with the historic and architectural qualities of adjacent historic districts, buildings and structures which are listed in or eligible for listing in the National Register.

D. Develop design solutions that are responsive to the unique program and contextual requirements of the Greenbush Project yet sympathetic to the existence and appearance of Historic Properties within the immediate surroundings.

E. Ensure that the existing appearance and condition of Historic Properties are documented so as to preserve the existing settings and character of place of Historic Properties, as further set forth in this Agreement at Stipulation XVIII.

F. Ensure the involvement of the Corps, SHPO, Towns and Project Conservator during the consideration of design alternatives so that historic preservation issues are identified early in the process and considered while fulfilling the long-term goals of the Project and community.

G. Adhere, in addition to the general standards set forth above, to the design standards set forth in the *Historic Preservation Design Guidelines* which are set forth at *Attachment A* to this Agreement and which are also discussed at Chapter 5, Section C.4 of the CE&M Report, which is attached to this Agreement at *Attachment B*.

II. RIGHT-OF-WAY MITIGATION

A. During the completion of Project design and engineering, the MBTA shall continue to design Project right of way improvements in a manner that avoids and/or minimizes land acquisitions (whether by purchase, takings or otherwise) and relocations of residential and commercial Historic Properties, including utilizing the former Greenbush Line rail right-of-way and existing street or highway rights-of-way to the extent feasible and with due regard for public safety, MBTA's operational requirements, cost and maintenance.

B. In the event that relocation of any Historic Properties is proposed by MBTA as part of the design of the Project, the MBTA will consult with the affected property owner(s) and Project Conservator to evaluate alternative sites and the measures that will be taken to preserve the property during the physical move, and then with the Corps and SHPO prior to any determination to incorporate such relocation(s) in the final design and engineering documents for the Project. In the event that any relocation is included in the final documents for the Project, the Corps, in consultation with SHPO, shall redetermine whether the Historic Property as relocated continues to qualify for National Register listing or eligibility.

C. The rail right-of-way shall be constructed utilizing measures to resolve

Adverse Effects of vibration impacts to Historic Property structures as set forth at Stipulation XII.A, below (Construction Activities Planning and Management).

III. MITIGATION AT STATIONS AND PARKING AREAS

A. During the completion of Project design and engineering, the MBTA shall continue to design Project stations and parking areas in a manner which avoids and/or minimizes land acquisitions and relocations of residential and commercial Historic Properties for stations and parking areas to the extent feasible and with due regard for public safety, MBTA's operational requirements, cost and maintenance.

B. In the event that after commencement of Greenbush Line revenue service and during the Term of this Agreement (see Stipulation XXII.B.), the MBTA determines that additional or expanded parking facilities are required which are not otherwise proposed in the Project Plans or in the Design Submissions, the MBTA will consult with the Project Conservator and then coordinate with Corps, SHPO and the affected Town regarding MBTA's plans and designs to accommodate such requirements with respect to any previously unanticipated Adverse Effects on Historic Properties that may arise in establishing such facilities, and measures to resolve such Adverse Effects.

C. In such event (see Paragraph B., immediately above), the MBTA shall coordinate with the affected Town, SHPO and the Corps to develop additional measures to resolve such Adverse Effects. If, following such coordination, the Corps, SHPO and MBTA agree regarding the additional measures, the MBTA shall implement them. If the MBTA, Corps and SHPO are unable to reach agreement, the matter may be referred for dispute resolution set forth at Stipulation XV of this Agreement.

D. The MBTA shall include, as part of the appropriate Design Submissions called for under Stipulation VIII, below, internal landscaped areas at those station parking facilities which are located within or which are visible from Historic Properties for purpose of enhancing measures to resolve visual and setting Adverse Effects arising from the presence of such facilities, with due regard for public safety, MBTA's operating requirements, cost and maintenance.

E. Prior to the commencement of revenue passenger service, the MBTA shall submit to the Corps, SHPO, Towns and Project Conservator a maintenance plan which describes the practices and procedures to be used by MBTA and/or its contractors in the operation of stations and parking areas with regard to implementation of the measures to resolve Adverse Effects required under this Agreement.

IV. GRADE CROSSING MITIGATION

A. During the completion of the plans and specifications for the Project, the MBTA shall continue to design the Project in a manner that avoids the blowing of horns or whistles as trains approach grade crossings, except in emergency or temporary situations.

B. During the completion of Project design and engineering, the MBTA shall continue to design Project grade crossings in a manner which avoids and/or minimizes land acquisitions and relocations of residential and commercial Historic Properties to the extent feasible and with due regard for public safety, MBTA's operational requirements, cost and maintenance.

C. At those at-grade crossings which are identified in the MBTA's Project Plans (see CE&M Report, Appendix D) and which in the absence of other measures to resolve Adverse Effects would involve Adverse Effects on Historic Properties, the MBTA shall consider using grade crossing treatments which include four quadrant gates, and shall determine whether to use such gate treatments in lieu of alternative, median-barrier treatments based on consideration of factors such as the degree of adverse impact on Historic Properties, the reliability of technology which may be applied in the operation of the crossing and which is then available in the marketplace, the compatibility of such technology with system-wide signal and communications technology applications then in use by MBTA, physical and operational constraints at the particular crossing, the history of accidents at the particular grade crossing and at crossings similarly situated in New England, legal and liability considerations, and with due regard for the safety of the public, including train passengers and personnel as well as those persons seeking to cross the rail right of way.

D. The MBTA's ultimate determination (see Paragraph C, immediately above) whether to include four quadrant gate treatment at any grade crossing in the Project's final design and engineering will be made as follows: first (1), the MBTA shall determine whether the safety and other considerations set forth at Paragraph C, immediately above, are satisfactorily resolved in the use of a particular treatment at each such crossing and second (2), if MBTA makes the first determination affirmatively, it shall determine whether the selected treatment is consistent with FRA and other regulations which are then current and applicable as of the date of construction of the Project (it being acknowledged that with respect to this requirement, the MBTA shall seek a waiver of requirements of federal or state regulations if the first determination is made affirmatively and if a waiver would otherwise satisfy the requirements of then applicable FRA or other federal or state regulations applicable to such crossing). The MBTA shall notify the Corps, SHPO, the Towns and the Project Conservator regarding the determination it ultimately makes regarding these grade crossing treatments.

V. MEASURES TO RESOLVE NOISE AND VIBRATION ADVERSE EFFECTS

A. The MBTA shall continue to design the layover facility so that it is located at the end of the line in order to avoid late night and early morning noise and vibration impacts from moving empty trains ("deadheading") to their overnight storage location.

B. The MBTA shall continue to design the Project with continuously welded rail and resilient track fastening devices to minimize noise and vibration from train operations.

C. Bells at automatic grade crossing gates shall be sounded only when the gate is moving, and shall be deactivated when the gate is down in order to minimize noise impacts of the operation of such gates.

D. All railroad bridges shall be constructed with ballasted decks to reduce noise and vibration which may affect Historic Properties.

E. At certain locations adjacent to Historic Properties and shown in the CE&M Report (see Appendices A and D), noise walls are included in partial mitigation of noise impacts. In the event that these noise walls are changed materially, or in the event that additional noise walls are planned in the future, the MBTA shall notify and consult with the Project Conservator and will also notify the Corps and SHPO; the appropriate archaeological survey(s) will be conducted (see Stipulation XIII of this Agreement); and the results, including any comments of the Project Conservator, will be coordinated with Corps and SHPO.

F. All sub-ballast (gravel base) and ballast (the crushed rock under the tracks) will be replaced along the entire length of the Project with the depth of new material established by MBTA standards to reduce transmission of vibration from the tracks to the ground.

G. Vibration dampening treatments will be applied to the main track(s) at locations adjacent to Historic Properties (buildings) where vibration levels from operation of trains are projected by MBTA to equal or exceed the Federal Transit Administration's (FTA) "Impact" level (such projections having been made, as set forth in the CE&M Report, in accordance with the FTA's Noise and Vibration Impact Assessment Manual (*FTA Manual*)).

H. Sound insulation or other measures to resolve noise impacts will be applied to Historic Properties (buildings) at locations where noise levels from operations of trains are projected by MBTA to exceed the FTA "Impact" level (such projections made in accordance with the FTA Manual). The nature of such sound insulation treatments will be determined in coordination with the property owner subject to the maximum cost-justified amounts for each impacted property in accordance with the

MBTA's Greenbush Line Noise Mitigation Guidelines as described in the CE&M report at Appendix G.

I. If, during the completion of design, projections of noise or vibration levels at certain Historic Properties (buildings) change due to modifications in the design of the Project (such as train speeds or track locations relative to such buildings), the extent and type of the measures to resolve Adverse Effects due to noise or vibration to be included in the Project shall be modified in accordance with revised projections made per the FTA Manual, and such modifications shall be reflected in the appropriate Design Submissions called for under Stipulation VIII, below.

J. If, during design, it is determined, after further analysis, that a noise wall proposed in the CE&M Report as a measure to resolve, in whole or in part, a Noise Adverse Effect at a particular Historic Property, will be materially ineffective in achieving the level of reduction projected for such Properties, sound insulation treatments shall be provided at such Properties in accordance with revised projections made per the FTA Manual accounting for the actual noise reduction projected to be afforded by such noise wall and subject to the MBTA's Greenbush Line Noise Mitigation Guidelines as described in the CE&M report at Appendix G, and such modifications shall be reflected in the appropriate Design Submissions called for under Stipulation VIII, below.

K. If, after construction is complete and revenue passenger service is underway, a noise wall incorporated as a measure to resolve Noise Adverse Effects of the Project at a particular Historic Property building is determined, after further analysis, to be materially ineffective with reference to the noise levels projected for such Properties, sound insulation treatments shall be provided at such Properties in accordance with revised projections made per the FTA Manual accounting for the actual noise reduction projected to be afforded by such noise wall, subject to the MBTA's Greenbush Line Noise Mitigation Policy as described in the CE&M report at Appendix G.

VI. TRAFFIC AND ACCESS MITIGATION

A. During the completion of the plans and specifications for the Project, the MBTA shall continue to design the Project such that the existing ability to make both right and left turns from driveways is retained to the extent feasible and with due regard for public safety, MBTA's operational requirements, cost and maintenance. Without limitation of this provision, MBTA shall design any center medians at grade crossings to the minimum length permitted under then applicable or proposed FRA regulations where Historic Properties may otherwise be Adversely Affected by longer median barriers.

B. During the completion of Project design and engineering, MBTA shall continue to design the Project so as to minimize traffic queues at grade crossings to

the extent feasible and with due regard for public safety, MBTA's operational requirements, cost and maintenance.

C. Historic pedestrian access routes will be maintained to the extent feasible, with due regard for public safety, MBTA's operational requirements, cost and maintenance, and where existing grade crossings are proposed for closure, MBTA shall include in the appropriate Design Submissions (see Stipulation VIII) alternative pedestrian access across the right-of-way.

D. The MBTA shall cooperate with the Towns in which the Project is located in connection with local enforcement of traffic and parking regulations designed to minimize Adverse Effects on Historic Properties arising from commuter parking at locations other than MBTA-authorized off-street parking at stations.

VII. MEASURES TO RESOLVE VISUAL AND SETTING ADVERSE EFFECTS

A. During the completion of Project design and engineering, MBTA shall continue to design the Project so that the existing rail right-of-way is utilized to the extent feasible so as to preserve community cohesion, with due regard for public safety, MBTA's operational requirements, cost and maintenance.

B. During construction and future maintenance of the rail corridor, unnecessary clear-cutting of trees and vegetation that would have an adverse visual impact on Historic Properties will be avoided and existing trees and vegetative screening will be retained to buffer visually Historic Properties from the rail line, to the extent feasible and with due regard for public safety, MBTA's operational requirements, cost and maintenance. It is understood that clearance of vegetation within fifteen feet of each side of the center line of any track within the right of way is necessary at a minimum.

C. MBTA shall cause its design contractor to provide reasonable documentation of existing trees and vegetation which otherwise serve as significant visual screening and which will be removed as part of the construction of the Project. Such documentation shall indicate whether trees or vegetation to be removed will be replaced in whole or in part (such as in so-called "infil" areas). The MBTA shall review such documentation with the Project Conservator prior to removal of vegetation and shall provide a copy of same (together with the comments, if any, of the Project Conservator) to the Corps, SHPO, and the Towns prior to removal of such vegetation.

D. A review of current landscaping conditions and materials will be undertaken by MBTA in order to assure the use of compatible materials in the vicinity of Historic Properties.

E. To the extent feasible, grade crossings medians will be bounded with granite curb and include an optional planting area, similar to those already present at many

intersections in the project area.

F. Where the Project Plans call for installation of new wood fencing or landscape plantings, individually or in combination, these elements will be introduced along the right-of-way adjacent to Historic Properties with the goal to form a reasonable visual screen and to be compatible with the character of the area. Existing style of fences (solid or chain link) will be taken into account and augmented, rather than replaced to the extent feasible. Wood fencing is proposed at locations where screening of the right of way is called for and there is not sufficient room for screening with plants.

G. Specific details of site-specific landscaping treatments proposed by the MBTA will be included in the Design Submissions prepared by the MBTA (see Stipulation VIII, below). In determining which treatments to provide, the MBTA shall take into consideration the specific comments received regarding plantings at particular Historic Properties during the Section 106 consultation prior to this Agreement. If the MBTA determines in its review with property owners where plantings are proposed that a fence would be preferable, a wooden fence at that location will be proposed. Where site-specific treatments call for plantings, the MBTA, in coordination with the Corps, shall monitor the plantings for a period of three years following installation. If the Corps, in coordination with SHPO, the Towns and MBTA, determines during this three year period that replanting of defective plantings is necessary, the MBTA shall cause such replantings to be performed as promptly as possible.

VIII. DESIGN REVIEWS

A. MBTA shall prepare, in coordination with the Project Conservator, and submit for review and comment to the Corps, the SHPO and the Towns (together with the comments, if any, of the Project Conservator), documents setting forth the design of various elements of the Project (consistent with practical requirements associated with a design-build or other alternative contracting arrangements that MBTA may undertake for the Project) which represent approximately sixty percent (60%) of the engineering progress on such elements and also which represent approximately ninety percent (90%) of such development (both of which are referred to herein as "*Design Submissions*"). The MBTA may prepare these Design Submissions in groups representing practical segments or construction contracts, and if an alternative arrangement such as design-build is utilized, at such progress milestones for various elements as may be practicably necessitated in accordance with such arrangement.

B. In the event that the SHPO, the Towns, the Project Conservator or the Corps advises the MBTA, in a timely manner as required under Stipulation XVLA of this Agreement, that a Design Submission, in whole or in part, does not adequately resolve Adverse Effects to Historic Properties with reference to the scope of measures provided for in the CE&M Report or under the terms of this Agreement, and provides specific comments identifying such deficiencies (*Deficiencies*), MBTA shall take such Deficiencies into account and shall either agree to implement corrective actions

in accordance with the direction of the Corps or shall attempt in good faith to resolve with the Corps and SHPO any disagreement regarding such Deficiencies.

C. In the event that MBTA and either the Corps or SHPO are unable to resolve the matter, the MBTA, Corps or SHPO may refer the matter for Dispute Resolution as provided below at Stipulation XV of this Agreement.

D. The MBTA shall not start construction on the segment(s) or element(s) included in a Design Submission until the parties set forth at Paragraph B, above, have had, in accordance with Stipulation XVI.A, the opportunity to comment on such Design Submissions. The MBTA may proceed with the further design or with construction, as the case may be, of any such segments or elements for which the Project Conservator, SHPO and the Corps has commented that there are no Deficiencies (or as to which the time for comment has expired without substantive comment) even though review of any other segments or elements may be pending.

E. The SHPO, Corps, and the Towns shall make every reasonable effort to make comments about any major Historic Property design concerns with respect to the Project segments or elements covered in a Design Submission at the time of the Submission which represents approximately 60% of the engineering progress as such segments or elements. If such comments are timely provided in accordance with Stipulation XVI.A, the MBTA shall ensure that the 90% Design Submission for such segment or element shall take into account any such major comments. When the final design or engineering documents for such Project segment or element are completed for purposes of initiating construction of such segments or elements, the MBTA shall make them available for inspection by the Corps, SHPO, the Towns and Project Conservator prior to commencement of construction, and shall provide to the consulting parties written responses to comments on the corresponding 90% Design Submission.

IX. IMPLEMENTATION OF MEASURES TO RESOLVE ADVERSE EFFECTS IN THE CE&M REPORT

A. Subject to the provisions of this Stipulation IX, MBTA shall ensure that the final design and engineering documents for the Project incorporate the measures to resolve Adverse Effects for Historic Properties that are identified in the CE&M Report at Appendices A (Location-Specific Mitigation) and D (Project Plans).

B. MBTA may modify the Project Plans (see Appendix D of the CE&M Report) in order to provide measures to resolve Adverse Effects at least equally or more protective of Historic Properties than those which may be depicted in such Plans, provided that such modifications are reflected in the sixty and ninety percent Design Submissions for the Project segments or elements covered by such Submission under Stipulation VIII, above, or are otherwise submitted (together with the comments, if any, of the Project Conservator) to the Corps and SHPO for review and comment

prior to their incorporation in the final Project design and engineering documents.

C. Without limitation of the provisions of Stipulation IX. B, immediately above, the MBTA shall coordinate further with the Corps, SHPO, Project Conservator and the Towns regarding the Adverse Effects on Historic Properties described in the CE&M Report and regarding potential additional or alternative measures to resolve such Adverse Effects associated with the Project elements identified below in this Paragraph C:

- 1) Final location of the Greenbush Line terminus and layover in Scituate.
- 2) Final determination by MBTA regarding grade crossing treatments under Stipulation IV.C of this Agreement.
- 3) Design of the Route 3A/Driftway roundabout intersection in Scituate.
- 4) Design of station, associated parking, crossings and roadways at Weymouth Landing, including Quincy Avenue in East Braintree.
- 5) Design of the crossing at Rocky Lane in Cohasset.
- 6) Design of the crossings, roadways and certain replacement parking in Cohasset Village, Egypt, certain intersections in Hingham referenced as "improvements to be determined" on the Project Plans, and North Scituate Village.
- 7) Measures to resolve Adverse Effects at the Cohasset Railroad Roundhouse Site in Cohasset Village.

The resolution of the design of these Project elements shall be reflected by the MBTA in the appropriate Design Submissions or otherwise shall be submitted (together with the comments, if any, of the Project Conservator) to the Corps, SHPO and Towns for review and comment prior to their incorporation in the final Project design and engineering documents. If the Corps and SHPO, in coordination with the Towns and considering any public comments received, determine that any design modifications proposed by the MBTA under this Paragraph C require further coordination or consultation due to the potential for new or additional Adverse Effects on Historic Properties arising out of such modifications, the Corps shall insure that this additional coordination or consultation takes place prior to the completion by MBTA of the final Project design and engineering documents.

X. ROLES AND RESPONSIBILITIES OF VARIOUS SECTION 106 PROCESS PARTICIPANTS

The following are the major roles and responsibilities of the participants in the Section 106 process for this Undertaking in the implementation of this Agreement:

A. As the federal **Agency Official** under the Advisory Council's regulations (36 C.F.R. 800) as well as the Corps' regulations implementing Section 106 at 33 C.F.R. Part 325, Appendix C, the Corps has the statutory obligation to fulfill the requirements of Section 106, has ultimate approval authority for the Undertaking and has the authority to enforce the terms and conditions of its Section 404 Permit, of which this Agreement is a part, in accordance with the Clean Water Act. Under the terms of this Agreement, the Corps will provide oversight, coordinate with SHPO and MBTA, monitor the implementation of this Agreement by MBTA and further evaluate effects of Project activities such as those set forth at Stipulation IX.C.

B. Having been invited by the Corps to participate directly as a consulting party in connection with Section 106 review for this Undertaking and having consulted with and commented to the Corps as Agency Official on this Undertaking and on its effects on Historic Properties, the **Advisory Council** will have a continuing role in the circumstances set forth in this Agreement, including reviewing various status reports called for under this Agreement, participating in dispute resolution (see Stipulation XV), and advising the Corps, SHPO and MBTA of any compliance issues that may be raised by the public to the Advisory Council.

C. The **State Historic Preservation Officer**, or SHPO, serves in accordance with Section 106, with the Advisory Council's implementing regulations and with Massachusetts law (including the Massachusetts Historical Commission Act) to reflect the interests of the State and its citizens in the preservation of their cultural heritage. In accordance with Section 101(b)(3) of the NHPA, and the terms of this Agreement, the SHPO will advise and assist the Corps and the MBTA in carrying out their responsibilities under this Agreement, including coordinating with the Corps and MBTA in the review of design documents and the various status reports during and after construction of the Project as called for under this Agreement; coordinate with the Project Conservator with regard to the Conservator's recommendations concerning the implementation of this Agreement; and monitor the impacts of measures to resolve Adverse Effects on the integrity of Historic Properties.

D. Having invited the participation of **Indian tribes** in the Section 106 process for this Undertaking (see Section 101(d)(6)(B) of the NHPA) that may attach religious or cultural significance to Historic Properties that may be affected by the proposed Undertaking, and that may be located within tribal ancestral lands (in the case of this Undertaking, there are no tribal lands within the APE), the **Tribal Historic Preservation Officer (THPO)** (appointed or designated in accordance with the NHPA as the official representative of his or her Indian tribe) will continue to have the opportunity to consult regarding the Project's effects on Historic Properties

on tribal ancestral lands, specifically with reference to archaeological sites which may become involved as the Project design is advanced.

E. As the Project proponent and permittee of the Corps Section 404 Permit for this Undertaking, and having served both as a consulting party and, in furtherance of the authority provided under both the Corps' regulations and the Advisory Council's regulations (see, e.g., 36 C.F.R. 800.3(b) and 800.11(b)) as a source of information and documentation regarding the Undertaking, the MBTA shall continue to perform the planning and design of the Undertaking and shall have the principal responsibility for implementing the provisions of this Agreement, including the resolution of Adverse Effects documented in this Agreement and the preparation of design submissions which will be the subject of further coordination and review under this Agreement (see, e.g., Stipulations VIII and IX)

F. The representatives of local governments in whose jurisdiction the Undertaking will occur, including the Towns of Braintree, Cohasset, Hingham, Scituate and Weymouth, having been invited by the Corps to participate as consulting parties in the Section 106 process leading to this Agreement, will continue to have the opportunity to submit further comments to the Corps, SHPO, MBTA and Advisory Council at various points in the Project design and construction process as provided in this Agreement (see, e.g., Stipulations VIII and IX); continue on-going discussions directly with the MBTA, as Project proponent and Section 404 Permittee regarding the Project's effects and Adverse Effects on Historic Properties as well as on the Project's environmental impacts generally; coordinate with the Project Conservator (see e.g., Stipulation XI.C.); have the opportunity to participate in any further consultations with respect to Historic Properties within the Town that may occur; and if a signatory to this Agreement, participate in the process regarding any amendments to this Agreement which may be advanced during its implementation (see Stipulation XXII. A.) and regarding any proposed extension of the Term of this Agreement (see Stipulation XXII.B.).

G. The general public will continue to receive periodic reports and information concerning the completion of the Undertaking, including its effects on Historic Properties, and measures to resolve Adverse Effects and will continue to have the opportunity to provide the views of the public regarding the implementation of this Agreement (see, e.g., Stipulation XVII).

XI. PROJECT CONSERVATOR

A. Promptly following completion by the Corps and MBTA of environmental reviews under applicable provisions of NEPA, the Clean Water Act and MEPA, the MBTA shall appoint and be responsible for the compensation of a Project Conservator ("*Project Conservator*" or "*Conservator*"). The Conservator shall meet the National Park Service's standards set forth at 36 C.F.R. Part 61 regarding qualifications for preservation professionals and either he/she or any other

professional(s) serving with him/her shall meet such standards in the areas of architecture, architectural history, historic preservation and archeology. In the selection of the Conservator, the MBTA shall use its standard consultant hiring procedures. The Corps and SHPO shall review and approve (1) the Request for Proposals for the Project Conservator prior to the release of such RFP, (2) the qualifications of the final candidates under consideration by the MBTA prior to the final selection of the Conservator by the MBTA, and (3) the scope of work of the Conservator to be included in the MBTA's contract with the Conservator, in order to ensure that the Conservator's duties and responsibilities are consistent with the provisions of this Stipulation XI. Upon making its selection of the Project Conservator, the MBTA shall provide written notification thereof to the Corps, SHPO, Advisory Council and Towns.

B. The Project Conservator shall serve during the design and construction process for the Project and during the balance of the initial Term of this Agreement (see Stipulation XXII.B). Following such initial Term, the Conservator shall continue to perform the Conservator's responsibilities hereunder for any period to be determined by the Corps and SHPO in coordination with MBTA, but not to exceed the extended Term (if any) of this Agreement.

C. The Project Conservator's principal task shall be to monitor and assess compliance by the MBTA with this Agreement, specifically, the implementation of the measures to resolve Adverse Effects stipulated herein (refer specifically to the CE&M Report at Appendix A). It is understood that the MBTA shall continue to engage, as part of its Project design team, consultant(s) which have professional qualifications meeting National Park Service professional standards in the areas of historic preservation, architecture, architectural history, and archeology, and that the MBTA shall continue to be responsible for the performance of further studies, evaluations and other tasks required to meet the Stipulations set forth in this Agreement. In this context and consistent with the independent monitoring and advisory role assigned to the Project Conservator under this Agreement, the Conservator shall perform the following responsibilities:

- 1) Meet and confer on a regular basis with the MBTA's design contractor(s) to review, evaluate and comment on the development by MBTA of Project design and engineering documents with respect to Historic Properties concerns, including, but not limited to, the Design Submissions called for under Stipulation VIII of this Agreement, and any Project Changes that may arise under the terms of Stipulation X, above. Upon the MBTA's request, the Project Conservator shall promptly provide to MBTA the Conservator's comments, if any, on the Design Submissions or other submittals which MBTA is required to make to the Corps, SHPO and Towns under this Agreement.
- 2) Monitor the MBTA's compliance during the design and construction process

for the Project of the special Historic Preservation Design Guidelines referred to in the CE&M Report at Chapter 5, Stipulation C.

- 3) Monitor and assess the need for any additional work related to any future archeological investigations and/or unanticipated discoveries during construction (see Stipulations XIII and XIV of this Agreement regarding Protection of Archaeological Resources and Unanticipated Discoveries of Historic Properties) and if the Conservator identifies such need, make recommendations to the Corps, SHPO and MBTA regarding same.
- 4) Monitor work performed on Historic Properties with respect to measures to resolve Adverse Effects due to noise and vibration under this Agreement.
- 5) Coordinate regularly with the Corps and SHPO in connection with the Conservator's observations and recommendations regarding the progress of the Project in implementing measures to resolve Adverse Effects called for under this Agreement.
- 6) Submit semi-annual reports concerning the progress of the Project in the implementation of the Stipulations set forth herein to the MBTA, Corps, Advisory Council, SHPO and the Towns in which the Project is located, with copies available to any other interested party who so requests.
- 7) Coordinate regarding the effects of the Project on Historic Properties, as regularly as is reasonably possible, with (a) owners of Historic Properties within the APE regarding the effects of the Project, if any, on those Properties; (b) historic commissions which are duly constituted and serving within the Greenbush Corridor localities; (c) elected officials serving within those localities (or those duly appointed by them and authorized to act on their behalf) and (d) other interested private parties who have a demonstrated interest in, and history of association with, the protection of historic preservation values in the affected communities, and coordinate with such persons regarding the effect of projects and programs that may be undertaken by others (e.g. a Town) that may have potential impact on the implementation of the measures to resolve Adverse Effects required under this Agreement.
- 8) Report to the MBTA, the Corps and SHPO concerning the existence, if any, of previously unidentified Adverse Effects of the Project on Historic Properties (that is, Adverse Effects which are not otherwise materially identified in the CE&M Report at Attachment A to this Agreement and for which measures to resolve such Effects has not already been proposed), including the nature and magnitude of any such unanticipated Adverse Effect and the potential measures that may be available to resolve such Effect.
- 9) In addition to the informal conferences and meetings which the MBTA and

Conservator will hold in the normal course of development in the Project's design and engineering, meet and confer formally with MBTA reasonably promptly upon the written request of either the MBTA or the Project Conservator, regarding any recommendations made in writing by the Conservator and MBTA's response to such recommendations. If, following such formal conference, the MBTA and the Conservator reach consensus regarding the appropriate resolution of the Conservator's recommendations, MBTA shall document the consensus it has reached with the Conservator in a letter which shall be submitted for the record for review and comment to the Corps and SHPO, with copies to the appropriate Town(s). Subsequent to the Corps' approval, the MBTA shall implement the actions incorporated in such letter.

- 10) In the event that this coordination does not conclude in a consensus determination acceptable to the MBTA, the Corps and SHPO regarding such recommendations and the potential measures to resolve Adverse Effects, the MBTA, Corps or SHPO may refer the matter for Dispute Resolution in accordance with Stipulation XV of this Agreement.

XII. CONSTRUCTION ACTIVITIES PLANNING AND MANAGEMENT

A. The MBTA shall cause its contractor to prepare, in consultation with the Project Conservator, a written Construction Management Plan which summarizes how the measures applicable to construction period management as required in this Stipulation XII shall be implemented.

B. The MBTA shall submit this Plan, together with the comments of the Project Conservator, if any, in advance of the commencement of construction to the Corps, SHPO and Towns in which such construction is located for their comment. The MBTA shall consider any comments timely received as provided in Stipulation XVI.A.

C. Once approved by the MBTA, the Plan shall be forwarded to the Corps and SHPO and shall also be available for inspection at the offices of the MBTA by any interested person making a request therefore.

D. The Construction Management Plan shall include the following measures to resolve Adverse Effects, which shall be in place prior to the commencement of construction:

1. Historic Properties adjacent to the railroad right of way and other Project construction areas shall be protected from damage due to construction activities through implementation of the following protective measures:

a. Inspection and documentation, including still photography and/or

- video taping, of the condition of all properties adjacent to all Project construction areas prior to the start of construction activities in accordance with MBTA Standard Construction Specifications.
- b. Inspection and evaluation during final design of building foundations immediately adjacent to slurry walls or excavations requiring shoring for support (collectively "Deep Excavation"), and if indicated by such inspection and evaluation, repair or stabilization of such foundation(s) in accordance with the U.S. Interior Secretary's Standards prior to the start of such Deep Excavation to minimize the possibility of "slight" or greater damage (as such terms are defined by Boscardin & Cording, in "Building Response to Excavation-Induced Settlement" included in the CE&M Report at Appendix K.1) to such foundations resulting from excavation-induced settlements (referred to below as "Damage").
 - c. Geotechnical monitoring of buildings within the area adjacent to a Deep Excavation where the excavation activity may produce settlements (specifically, the area within a horizontal distance from the edge of a Deep Excavation equal to twice the depth of such excavation - referred to as the Zone of Influence for Deep Excavation). Where the Deep Excavation at a particular location requires dewatering, the Zone of Influence for Deep Excavation shall be extended as appropriate to include the area of ground water draw down determined through the use of groundwater monitoring wells installed prior to the commencement of dewatering activities and geotechnical monitoring of Historic buildings within that additional area shall be provided. Such geotechnical monitoring shall be designed to detect building movements in real time before Damage is caused. If significant building movements are detected, construction activities shall be modified as necessary to prevent Damage from occurring.
 - d. Where blasting or other construction activities generating potentially damaging levels of vibration occurs, vibration monitoring of Historic Properties (buildings) shall be performed within an area to be determined prior to the commencement of production blasting or of such other construction activities (the extent of such zone depending on the nature of each such construction activity) to ensure that vibration levels at such buildings do not exceed the relevant limits specified in the "New Swiss Standard" (as referenced by Wiss in "Construction Vibrations: State of the Art" included in the CE&M at Appendix K.2).
 - e. Repair of any Damage to Historic Properties adjacent to Project construction areas caused by the MBTA construction activities described above shall be performed at no expense to the property.

owner. All such repairs shall be in accordance with the U.S. Interior Secretary's Standards.

2. The MBTA shall coordinate with the Project Conservator in the location of staging areas in protected locations outside Historic Properties (districts) wherever possible, and in as unobtrusive a location as possible within Historic Properties if alternate locations are infeasible. Locations of staging and storage areas and other areas that may be impacted by construction activities and which have not been previously identified in MBTA's Project Plans or Design Submissions shall be reviewed by MBTA with the Corps, SHPO, the affected Town and the Project Conservator with regard to potential effects on Historic Properties. Staging area fencing shall be chain-link fence where Historic Properties used as residences are more than fifty feet from the staging area. Where such residences are less than fifty feet from the staging area, a temporary solid wood fence, six feet in height, shall be used as a solid visual screen.
3. Dust and debris shall be carefully controlled, contained and disposed of properly according to environmental regulations and consistent with MBTA Standard Specifications for construction, January 1980 or current edition ("Standard Specifications"). Trucks and equipment shall have wheel washes and load covers as required to protect Historic Properties. Noise from construction activities shall be limited in accordance with the Standard Specifications and the Construction Noise Criteria described in CE&M Appendix G (MBTA Greenbush Line Noise Mitigation Guidelines, November, 2000).
4. Restrictions on hours and locations for construction activities, including location of staging areas in the vicinity of sensitive Historic Properties, shall be described in the construction documents.
5. Plans for traffic management during construction (including construction vehicles and equipment) shall be cooperatively developed by the MBTA with each Town.
6. The Construction Management Plan for the Project will include provisions to protect certain commercial areas, such as Weymouth Landing, Hingham Square, Cohasset Village and North Scituate, to the extent that economic viability during construction of the Project may be a material concern with regard to Historic Properties. These plans will specify measures to resolve Adverse Effects, such as signage, construction scheduling, staging area controls, parking plans, construction vehicle traffic management, prevention of structural subsidence, and controls on construction-generated noise, vibration, dust, and visual impacts where feasible and practicable.

XIII. PROTECTION OF ARCHAEOLOGICAL RESOURCES

A. For those below-ground areas impacted by the Project which have not been included in the archaeological investigations and reports previously conducted, (see *Attachment C* to this Agreement), including, but not limited to, areas where modifications to Project plans and specifications may occur during the completion of the design process or during actual construction (such as, for example, changes in or additions to Project staging areas), MBTA shall:

1. Submit information on the location of new project areas to the Corps who shall, in consultation with the SHPO and State Archaeologist, determine the need and scope for an archaeological identification survey.
2. Perform an identification survey and evaluation in a manner consistent with the Secretary of the Interior's Standards and Guidelines for Identification (48 FR 44720-23) and the Massachusetts State Archaeologist's permit regulations (950 CMR 70) and in doing so, shall take into account the National Park Service publications, *The Archeological Survey, Methods and Uses*, and the Advisory Council's publications *Consulting About Archaeology Under Section 106*, and *Treatment of Archeological Properties: A Handbook*. A report of such survey shall be submitted to the Corps, SHPO, State Archaeologist, THPO (if appropriate), and Project Conservator for their review and timely comment as set forth at Section XVI.A of this Agreement.
3. If such survey results in the identification of an Historic Property, a plan for in-place preservation shall be considered.
4. If such preservation is not feasible, a Data Recovery Plan (DRP) following the Secretary of the Interior's Standards and Guidelines for Archeological Documentation shall be developed and submitted to the Corps, SHPO, State Archaeologist, THPO (if appropriate) and Project Conservator for review and comment. Such DRP shall ensure that all archaeological materials recovered from such sites will be curated at an appropriate curatorial facility in a manner consistent with the U.S Interior Secretary's regulations at 36 C.F.R. Part 79.
5. As provided for in Stipulation XVLA, in the absence of receipt of written comments from the reviewers citing material deficiencies in such submission, the MBTA shall implement the DRP.

B. The MBTA shall consult with the Corps, SHPO, State Archaeologist, and THPO (if appropriate) to identify suitable avoidance and/or mitigation measures to resolve Adverse Effects to those archaeological resources referred to above in Paragraph A, Sections 3, 4, and 5.

XIV. UNANTICIPATED DISCOVERIES OF HISTORIC PROPERTIES.

A. In the event that previously unidentified historic or archaeological resources are discovered which may be affected by the Project in accordance with the criteria of Adverse Effect under 36 C.F.R. Part 800, the MBTA shall promptly notify the Corps, SHPO, State Archaeologist (when archaeological resources are involved), the relevant Town and Project Conservator, coordinate with the Project Conservator regarding same, and submit to these parties a written report evaluating the historic or archaeological resource for purposes of determining eligibility for inclusion in the National Register of Historic Places.

B. The Corps, SHPO, State Archaeologist (with respect to archaeological resources) and MBTA will consult promptly on the eligibility of the resources and the Corps, in consultation with SHPO, will promptly determine whether any such resources are Historic Properties subject to protection under 36 C.F.R. Part 800. If an affirmative determination is made by Corps, the MBTA shall promptly thereafter consult with the Project Conservator and submit to the Corps, SHPO and the relevant Town a written report describing the nature of the Effects which the Project will have on the particular Historic Properties, alternatives for the measures to resolve such newly identified Adverse Effects to such Properties, and the measures to resolve Adverse Effects which MBTA proposes to include as part of the Project's design and engineering documents with regard to such Properties, together with the Project Conservator's comments, if any.

C. The Corps, SHPO and Town shall have the opportunity to comment on such submission. In the event that the Corps, SHPO or the Town return to MBTA, in a timely manner (see Stipulation XVI.A.), comments identifying material Deficiencies in MBTA's report, MBTA shall take the same into account and shall either agree to implement corrective actions in accordance with the direction of the Corps or shall attempt in good faith to resolve any disagreement regarding such Deficiencies with the Corps or SHPO.

D. In the event that MBTA and either the Corps or SHPO are unable to resolve the matter, the MBTA, Corps or SHPO may refer the matter for Dispute Resolution as provided below at Stipulation XV of this Agreement.

E. MBTA shall ensure that in responding to previously unidentified discoveries, the protocol developed in consultation with SHPO and attached hereto at *Attachment D* is followed.

F. The MBTA shall ensure in that if any human burial remains are identified during construction activities associated with the undertaking, work will cease immediately and the procedures under Massachusetts General Laws, Chapter 8, Section 6B; Chapter 9, Section 27C; and Chapter 7, Section 38A; and the Native Americans Graves Protection and Repatriation Act of 1990 (NAGPRA - 25 U.S.C.

3001-13) will be implemented, as further described at Section F, below. MBTA shall insure that in responding to the discovery of any such burial remains, the protocol developed in consultation with SHPO and attached hereto at *Attachment E* is followed.

XV. DISPUTE RESOLUTION.

A. If the SHPO or the Corps make a timely objection (see Stipulation XVI.A, below) to a Design Submission made under Stipulation VIII of this Agreement, or if MBTA, SHPO or the Corps request formal dispute resolution with respect to any other material issue of noncompliance with this Agreement, and in either such case, with specific reference to the Stipulation or Stipulations applicable hereunder, the MBTA, SHPO and the Corps shall consult one time further, in good faith, to attempt to resolve the subject matter of such dispute prior to undertaking formal dispute resolution in accordance with the remaining provisions of this Stipulation XV.

B. Following such further consultation, the Corps shall determine as promptly as possible whether such objection on other issue has been satisfactorily resolved, and if not, the Corps shall forward within fifteen (15) calendar days of the Corps' determination in this regard all documentation relevant to the dispute to the Advisory Council, including, if appropriate, an amendment to this Agreement reflecting the Corps' proposed resolution of the dispute, and request that the Advisory Council act on such dispute in accordance with 36 C.F.R. Part 800.

C. Within thirty (30) calendar days after receipt of all pertinent documentation, the Advisory Council's Executive Director shall either:

1. Provide the Corps, SHPO, Project Conservator and MBTA with recommendations, which the Corps, as Federal Agency Official, shall take into account in reaching a final decision regarding the subject matter of such dispute; or
2. Notify the Corps, SHPO, Project Conservator and MBTA that the Advisory Council will comment pursuant to 36 CFR 800.6 and promptly (not later than fifteen (15) additional days) provide such comment in writing to the Corps, with copies to SHPO, the Project Conservator, the MBTA and any other Concurring Party executing this Agreement. Any such comment by the Advisory Council provided in response to such request shall be taken into account by the Corps, as federal Agency Official, in accordance with 36 C.F.R. Part 800 (Section 800.6(c)(2)) with reference to the subject matter of such dispute.
3. Failure by the Advisory Council's Executive Director to respond within 30 calendar days of a receipt of such documentation shall be

deemed to constitute approval of the Corps' proposed resolution of the dispute.

D. Any recommendations or comments provided by ACHP pursuant to this Stipulation XV shall be understood to pertain only to the particular subject matter of such dispute. The responsibility and authority of the Corps and of the MBTA to carry out all other actions and activities under this Agreement that are not the subject of the dispute shall remain unaffected.

XVI. COORDINATION OF REVIEWS.

A. The Corps, SHPO, Project Conservator and Towns responsible for reviewing and commenting on Design Submissions, or on other submissions or requests made by MBTA under this Agreement, shall be delivered to MBTA within thirty (30) calendar days of receipt from MBTA of the submissions or requests, unless an alternative timetable in any particular instance is agreed upon in writing by MBTA. Failure by the Corps, SHPO, Project Conservator or Towns to provide written comments within said 30 day period shall be considered for purposes of this Agreement to be concurrence with such submission or request. The MBTA may proceed with the action(s) which were the subject of such submission or request after documenting for the record the expiration of the comment period.

B. Comments by Corps, SHPO, Conservator or Town regarding MBTA's compliance with this Agreement shall be guided by the CE&M Report and the measures to resolve Adverse Effects described therein, except with respect to any specific additional or alternative measures to resolve Adverse Effects items that may be developed in accordance with Stipulation IX, Paragraphs B and C of this Agreement, as to which it is understood that further information on potential measures to resolve Adverse Effects will be provided by the MBTA.

C. MBTA shall insure that its design consultants and construction contractors, including, as appropriate, its contractor under any Design Build arrangement which may be undertaken by MBTA, are informed regarding the coordination procedures and other Stipulations set forth in this Agreement.

D. To the maximum extent feasible, all reviews required under this Agreement shall be coordinated with other federal, state and local reviews, including, but not limited to, the MEPA environmental impact review and any environmental impact review documentation prepared by the Corps with respect to NEPA compliance. In the event that these reviews suggest modifications to the Project with which the MBTA concurs, it is expected that MBTA will include such modifications in the Design Submissions called for under Stipulation VIII for purposes of any additional review and comment concerning Historic Properties matters, and that any such modifications shall not be considered "Project Changes" for purposes of Stipulation X of this Agreement.

XVII. PUBLIC INVOLVEMENT.

A. The MBTA shall continue to coordinate with members of the public, including elected and appointed officials and private citizens, through the MEPA environmental review process (concluding with publication and approval of the Final Environmental Impact Report) and following completion of that process, through regular opportunities for public meetings and distribution of informational materials wherein the public can understand and have the opportunity to comment on the progress of the completion of Project design and construction with respect to the implementation of this Agreement. The MBTA shall notify the Corps and SHPO as well as the Project Conservator and the affected Town reasonably in advance regarding any meetings with the public that may involve concerns related to implementation of this Agreement.

B. At any time during the implementation of the Stipulations in this Agreement, should a timely and substantive objection to such implementation be raised in writing by a member of the public to the Corps, SHPO or Advisory Council (with a copy of same being provided at the same time by the objecting party to the MBTA's Director of Design and Construction, Project Conservator and affected Town), the Corps, SHPO or Advisory Council may refer the same to the MBTA, which shall reasonably promptly, but in no event later than thirty (30) calendar days after receipt of such objection, review it and provide to the objecting party the MBTA's response in writing thereto. MBTA shall provide copies of such response to the Corps, the SHPO, the Towns and the Project Conservator.

C. In the event that in the opinion of the Corps, such objection remains materially unresolved after MBTA's response thereto, the Corps and MBTA shall take the objection into account and consult as needed in good faith with the objecting party, the SHPO, the Project Conservator and/or the Advisory Council, as appropriate in the determination of the Corps, in an attempt to resolve the objection.

XVIII. RECORDATION OF HISTORIC PROPERTIES

A. The existing appearance of all Historic Properties adjacent to the railroad right of way shall be documented prior to the start of construction on the Project. The MBTA shall, in consultation with SHPO, evaluate existing photography and other information completed during Project planning as to its adequacy for documenting said appearance in accordance with MHC standards and, if required, the Historic American Buildings Survey/Historic American Engineering Record standards.

B. The scope of any additional photography to document existing appearance will be submitted to the Corps, SHPO, and the MBTA for review and approval prior to being undertaken.

C. Other recordation actions shall focus solely on any identified deficiencies in photography of existing appearances that may need to be addressed.

D. The MBTA shall, in coordination with the SHPO and the Towns, place interpretive signs documenting historic elements of the station and parking areas at the Stations.

XIX. COORDINATION WITH OTHER FEDERAL ASSISTANCE

A. Where a Town or other appropriate agency of state or local government notifies the Corps, SHPO and MBTA that it intends to apply for federal or state financial assistance for projects for infrastructure, streetscapes, structural rehabilitation or other improvements in a manner supportive of the Historic Properties protection goals of the Project and this Agreement, the SHPO and MBTA shall support such Project to the extent permitted by their respective enabling legislation, including by providing written documentation to the agency administering such funding program concerning the consistency of the applicant's proposed improvement with the Historic Properties measures to resolve Adverse Effects required under this Agreement.

B. In the event that such administering agency is a Federal agency, it may satisfy its Section 106 responsibilities by agreeing in writing to comply with the terms of this Agreement material to its program and notifying the SHPO and Advisory Council accordingly. Similarly, in the event that the administering agency is a Massachusetts agency, it may similarly satisfy its responsibilities under the State Historic Act, Mass. Gen. Laws, Chapter 9, §§26 et seq.

XX. PROJECT MONITORING

A. During construction of the Project, the MBTA shall submit to the Corps, Advisory Council, SHPO, Project Conservator and Towns (and to any other person who requests a copy of same) semi-annual progress reports summarizing the status of implementation of the measures to resolve Adverse Effects called for under this Agreement, with the last such report to be prepared not later than three months after completion of construction. In the event that any of the above-referenced parties so request, the MBTA shall conduct an informational meeting to obtain comments and suggestions regarding the further implementation of the measures to resolve Adverse Effects under this Agreement.

B. After revenue passenger services have been in operation for a reasonable period of time, not to exceed one year, the MBTA, in consultation with the Project Conservator, will evaluate Project-related noise and vibration levels, using standard procedures and following Federal Transit Administration guidelines for noise and vibration impact assessment and measures to resolve Adverse Effects. For Historic Properties where no measures to resolve noise or vibration Adverse Effects has been provided, should noise or vibration levels exceed applicable thresholds for measures to resolve Adverse

Effects as set forth in the CE&M Report (Chapter 5, Section B.3) and its Appendices (E and H), the MBTA will consult with the Corps, SHPO, and Project Conservator regarding appropriate measures to resolve Adverse Effects.

C. On or before the commencement of the third year of revenue operations of the Project, MBTA shall prepare and submit to the Corps, SHPO, Advisory Council, Project Conservator and Towns (and to any other person who requests a copy of same) a report summarizing the implementation of the measures to resolve Adverse Effects (other than with regard to noise and vibration effects which are addressed at Paragraph B, above) that was ultimately incorporated into the contractual documents for the Project as built, and reviewing the overall efficacy of such measures in achieving their intended goals. Among the matters to be considered in this report will be the efficacy of grade crossing treatments in relation to Historic Properties concerns, and any long-term Adverse Effects that are discernible in specific relation to the Project's operation, that were not anticipated in the CE&M Report and which would not have arisen but for the operation of the Project.

D. With regard to landscape plantings installed as measures to resolve Adverse Effects to Historic Properties, MBTA shall submit to the Corps and SHPO reasonably promptly after the first growing season for such plantings and annually thereafter for the two successive growing seasons following the first such season a monitoring report summarizing the results of the plantings and indicating whether defective plantings have occurred which require replacement as otherwise provided under Stipulation VII. G., above.

XXI. EMERGENCY SITUATIONS

In the event that during construction of the Project, an emergency situation should occur (such as a natural disaster), which represents an immediate threat to public health, safety, life or property creating a hazardous condition in relation to an Historic Property, the MBTA shall notify the Corps, Advisory Council and SHPO of the condition which has initiated the situation and the measures to be taken to respond to the emergency or hazardous condition. The Corps and SHPO may submit additional measures to resolve Adverse Effects within seven days of the notification. Should the nature of the emergency warrant immediate attention, the MBTA shall consult with the Corps and SHPO via telephone or facsimile. Should the SHPO or the Corps desire to provide technical assistance to MBTA in responding to such condition, they shall submit comments within five days from notification, if the nature of the emergency or hazardous condition allows for such coordination.

XXII. ADMINISTRATIVE PROVISIONS

A. Amendments. Any signatory party to this Agreement may request that it be amended by providing notice of such request in writing to the other signatories. In such event, the Corps shall consult with the MBTA, SHPO the Advisory Council and

with any other signatory in accordance with 36 C.F.R. Part 800 to consider such amendment. No such amendment shall be effective unless it is executed by the Corps, SHPO, and the MBTA.

B. Duration of Agreement. This Agreement shall remain in force run during the design and construction of the Project and for the period thereafter which terminates on the end of the first full calendar month following the month which is three (3) years after commencement of revenue passenger operations on the Greenbush Line (*Term*). If the SHPO or the Corps requests that this initial Term be extended, notification of this request shall be made by the Corps or SHPO, as the case may be, to the Advisory Council, MBTA and Towns. The Corps shall consult with the other such parties regarding this matter, and the Term shall be extended for such additional period as may be concurred on by the signatories to this Agreement based on such consultation. In the event that the signatories do not reach consensus on a requested extension, the matter of whether to extend shall be treated as an amendment to be resolved by the Corps, SHPO and MBTA as provided under Paragraph A above.

C. Nothing in this Agreement shall be construed to impose on the MBTA any additional liabilities or obligations with respect to the subject matter of the Agreement other than those specifically stated herein, or to relieve the MBTA from complying with all other laws and regulations applicable to it.

EXECUTION of this Memorandum of Agreement and implementation of its terms evidences that the Corps has engaged in the consultations required under Section 106, that the Corps has afforded the Advisory Council an opportunity to comment on the Greenbush Line Project and its effects on Historic Properties and that the Corps has taken into account the effects of the undertaking on Historic Properties in connection with the issuance of its Section 404 Permit for the Project in accordance with Sections 106 and 110(f) of the NHPA.

*****SIGNATURE PAGES FOLLOW*****

**Old Colony Railroad Rehabilitation Project
Greenbush Line Restoration**

**Section 106 Consultation
Programmatic Agreement**

Attachments

- A. Historic Preservation Design Guidelines
- B. Cultural Resources, Section 106 Comprehensive Effects and Mitigation Report, Old Colony Railroad Rehabilitation Project, Greenbush Line Restoration, Public Archaeology Laboratory, Inc., dated February, 2001 and letter from U.S. Army Corps of Engineers dated January 16, 2001.
- C. Archaeological Report References
- D. Procedures Guiding Unanticipated Archaeological Discoveries, PAL, Sept., 2000
- E. Procedures Guiding the Discovery of Unmarked Burials and Human Remains, PAL, Sept. 2000

Old Colony Railroad Rehabilitation Project Greenbush Line Restoration

Section 106 Consultation Programmatic Agreement

Attachment A

Historic Preservation Design Guidelines

Old Colony Railroad Greenbush Line

January 2001

Goals of Historic Preservation Design

The Historic Preservation Design Guidelines for the Old Colony Railroad Greenbush Line are intended to foster design that meets Project goals, policies, and safety standards and is consistent with the historical and architectural importance of the many historic resources in the five towns along its route. The goals for appropriate historic preservation design of the railroad right-of-way, stations, layover and maintenance facilities, grade crossings, roadway improvements, and all other Project elements are to:

- Avoid, minimize, and mitigate the effects of the rail infrastructure and operations on the adjacent historic properties to the greatest degree possible. This will be accomplished through the use of specific design guidelines which strive to balance the requirements and needs of historic preservation with the Project objectives, and to meet various federal and state transportation, public health and safety, environmental protection, and accessibility requirements;
- Be compatible wherever feasible with the historic and architectural qualities of the adjacent historic districts and individual historic properties; and
- Be consistent with the recommended approaches for new construction set forth in the Secretary of the Interior's *Standards for the Treatment of Historic Properties, including Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (U.S. Department of the Interior, National Park Service, 1992).

Successful design of Project-related elements and mitigation measures within a very particular historical and architectural context requires the following:

- A recognition that design solutions cannot be fully standardized and must respond to the unique programmatic and contextual requirements of the immediate surroundings to insure compatibility;
- A thorough inventory of existing conditions that contribute to the character of a place or setting, including historic and non-historic resources;
- The exploration and consideration of various design solutions early in the design process, with a clear focus on the long-term goals of the Project and the community; and
- reviewed and comment on the design of all Project elements that may affect historic properties by the CORPS, SHPO, and Project Conservator, in coordination with the Towns, where appropriate.

The approach to the design of Project-related elements and mitigation measures for the Greenbush Line is guided by the physical proximity of the historic property to the adverse effect (noise, vibration, visual and setting impacts, etc.). The closer the historic resource is to the Project right-of-way, the more important it is for standard Project elements and mitigation measures to be compatible with the historic and architectural context.

The specific elements included in the Historic Preservation Design Guidelines emphasize, but are not limited to, Project elements that will be developed during final design and construction specifications. These include paving, walkways, lighting, signs, fencing, street furniture, and landscaping. Conceptual and preliminary planning for the Project have already integrated design aspects that are sensitive to historic resources, including the use of existing right-of-way, and the location of stations, parking lots, layover and maintenance facilities, grade crossings, and roadway improvements.

Efforts to avoid adverse effects will continue throughout the final design and construction process, wherever possible. The design and specifications of the right-of-way, stations, grade crossings, and roadway improvements will be developed in coordination with the Massachusetts Historical Commission (MHC) and the Army Corps of Engineers (CORPS) with input from the communities. The historic preservation design review process will be overseen and coordinated by the Project Conservator. It is intended that this document will be an attachment to the Project Programmatic Agreement (PA).

Summary of Major Project Components

The Greenbush Line Project consists of the following major Project components. A brief summary of the elements associated with each Project component is presented here to assist in understanding the scope and objectives of the design guidelines.

Right-of-Way

The right-of-way is the former Old Colony Railroad Greenbush Line right-of-way. It ranges in width from 30 to 100 feet with a typical width of 66 feet. While the line originally had two tracks throughout its length, a single track with three passing sidings (each approximately one mile in length) is proposed. Existing vegetation within the right-of-way generally consists of small trees and bushes that have grown up since the end of railroad service. The existing vegetation will be removed from the portion of the right of way required for the railroad facilities, slope and drainage work, and sight distance. Existing vegetation will be retained where it does not interfere with construction or operations to maintain visual screening of adjacent properties. Chain link fence is required on both sides of the right-of-way in inhabited or public areas along the line.

Stations and Parking Lots

The stations consist of a platform, 4 feet high above the track, and 800 feet long (832 feet at terminal stations) and 12 feet wide on one side of the track. The platform is concrete, with a galvanized steel peaked roof canopy, 17 feet in height above the platform. Canopies are located at drop-off areas, ramps, and stairs. Tropical hardwood benches with galvanized steel supports, windscreens, and sign panel frames are generally located at 120 foot intervals along the platform. The back edge of the platform is protected with a galvanized steel picket railing. Walkways are paved in concrete. Parking lot capacity varies by site, accommodating between 190 to 1000 vehicles depending on projected demand. They are paved in asphalt with painted lines and landscaped with trees and shrubs at the perimeters. Internal landscaping within the parking lots is not included, as it conflicts with MBTA maintenance and capacity requirements. However, the MBTA will consider, as part of appropriate design submissions, internal landscaped areas at those station parking facilities which are located within or which are visible from Historic Properties. Landscaping will be considered for the purpose of enhancing measures to resolve visual and setting Adverse Effects arising from the presence of such facilities, with due regard for public safety, MBTA's operating requirements, cost, and maintenance. Round galvanized steel tube guardrail is used where the parking lot abuts the platform. Associated signage includes fiberglass signage panels with galvanized steel frames and supports and scrolling LED variable message signs, as well as a public address system. The Americans with Disabilities Act (ADA) requires the latter two items. Drop-off areas include brick paving and steel bollards. Lighting consists of galvanized steel light poles. There is no onsite staffing at the station facilities.

Stations are intended to be attractive, simple, and functional. They are designed in accordance with MBTA standards to provide consistent facilities that are safe, efficient, accessible, easily maintainable, and adequately sized. Accessibility requirements (including the Americans with Disabilities Act Accessibility Guidelines and the MBTA Guide to Access) must be adhered to through out the facility. Design of stations must also consider issues of security and snow removal. These considerations dictate adequate lighting; clear

sight lines; use of standardized features such as signs, canopies, and light fixtures; avoidance of obstructions within parking lots; and the maximum feasible number of parking spaces. It is MBTA policy to provide planted buffers along the perimeter of parking lot sites and to preserve existing significant natural features such as specimen trees, natural berms, and rock outcroppings to enhance the visual characteristics of the site where such features do not detract from the operation, security, or capacity of the facility. Interior traffic islands and medians, particularly those with interior corners, are avoided, except where essential for grading or circulation, as they impeded snow removal, complicate drainage, and may reduce lot capacity and/or the perimeter buffer areas. Graphic illustrations of standard MBTA station elements are presented at the back of this document.

Grade Crossings

Standard grade crossing warning systems consist of 16 foot high posts with flashing lights and gates on either side of the track(s), 23 foot high walkout cantilevers for support of flashing lights over the roadway (where required), and a signal equipment housing (bungalow), along with associated signage and pavement markings. In order to avoid the requirement that locomotive horns be blown at each crossing, the MBTA will provide supplementary safety measures at grade crossings on the Greenbush Line in accordance with the Swift Rail Development Act (Swift Act, 49 USC 20153) and final regulations that are expected to be issued during the Project design phase by the Federal Railroad Administration (FRA) implementing the Act). Grade crossing designs currently proposed conform to the requirements in the FRA's notice of proposed rule making (49 CFR 222, proposed) issued on January 13, 2000. The median barrier option that the MBTA has selected involves the installation of a 60 to 100 foot long raised median island in the center of each roadway approach to the crossings. The median will be bounded by 6 to 9-inch reveal granite curb and will be planted with low shrubs, grass, or other material agreed to with the controlling highway department which will be responsible for its maintenance. Generally, a curb to curb width of 40 feet is required for installation of the medians.

Inherent in the use of medians at grade crossings is the need to widen and in some cases realign the roadway in accordance with standard roadway design guidelines. Widening will occur within the existing roadway layout to the extent possible, but land taking may be required at some locations where the roadway layout width is inadequate. Sidewalks will be included if existing or if requested by the community. Sidewalk paving will match existing type with granite curbing. Existing lawns, plantings, and stone walls will be restored if they are disturbed by the Project.

During the final design phase of the Project, the MBTA will refine the design of the roadway improvements at grade crossings, and may reevaluate the type of supplementary safety measures utilized at each crossing considering the details of the final FRA Swift Act regulations, MBTA safety policy, and available technology. In the course of this reevaluation, the MBTA will consider the use of 4-quadrant gates at some or all of the

Greenbush Line grade crossings. Subject to the MBTA's commitment to avoid routine horn blowing at grade crossings, MBTA safety policy, and the FRA's regulations, the MBTA will provide grade crossing treatments at each grade crossing that minimize roadway widening, land takings, restrictions on traffic flow, and access restrictions on adjacent properties.

Roadway and Intersection Improvements

Modifications to roadway intersection required to accommodate increased or changed traffic flow resulting from the Project (such as stations) will be designed in accordance with applicable roadway design standards. To the extent possible, roadway modifications will occur within the existing roadway layout; however, land taking may be required at some locations where the roadway layout width is inadequate. Sidewalks will be included if existing or if requested by the community. Sidewalk paving will match existing type with granite curbing. Existing lawns, plantings, and stone walls will be restored if they are disturbed by the Project.

During the final design phase of the Project, the design of the proposed intersection improvements will be further developed and refined in coordination with the Towns and/or the Massachusetts Highway Department (MHD) as appropriate with the goal of providing the required capacity with a minimum of widening and land taking subject to applicable highway design standards.

Layover and Maintenance Facilities

The train Layover Facility will be located at the outbound end of the line and will consist of several tracks for overnight storage of trains; roadways between the tracks to permit inspection, light cleaning and servicing, and emergency access to the trains; an employee parking area for train crews and maintenance personnel; a small building for storage of supplies, an office, and facilities for the train crews; and a small electrical substation to supply power for the electric "plug-in" power system which eliminates the need to idle the locomotive engines overnight.

Maintenance of Way sidings are generally located at approximately 7 mile intervals along the line (space permitting) and at the layover facility. These sidings consist of an 800 foot long (ideally) side track with an adjacent (generally unpaved) area for short term parking of highway vehicles and storage of materials. These sidings will be used for short term storage of on-track inspection and maintenance equipment during inspection and maintenance operations.

Specific Design Objectives and Standards

The following itemization of Historic Preservation design elements is grouped by effect category and numbered sequentially.

Noise

Objective:

- To provide standard noise mitigation meeting Federal Transit Administration (FTA) standards and to ensure that noise mitigation, including noise walls and insulation of buildings, is visually and architecturally compatible with historic buildings and their setting.

The following design guidelines for noise mitigation will be employed:

1. **Noise wall**, six feet in height, with concrete and/or composite sound-absorbing panels on the trackside are standard for certain types of noise mitigation situations. If noise walls are proposed adjacent to historic properties, wood fence material will be attached to the outside to provide an appearance similar to the other wood fences of the Project. See illustration.
2. **Other noise mitigation.** The Massachusetts Bay Transportation Authority (MBTA) will pay contractor invoices for replacement windows, doors, wall insulation, air conditioning (to allow windows to remain closed to reduce noise exposure), foundation improvements, door and sill repairs, or similar measures to mitigate noise impacts. The measures will be selected from a list approved by the MBTA, and the design of any exterior changes must be approved by ongoing review mechanisms established by the Project PA.

Vibration

Objective:

- To provide standard vibration mitigation meeting FTA standards and to ensure that all necessary precautions and stabilization efforts are successfully completed to avoid any potential damage to historic buildings.

The following design guidelines for vibration mitigation will be employed:

3. **Vibration mats**, such as rubber ballast mats over bituminous concrete (or equivalent mitigation) to reduce vibration transmission to nearby buildings, will be provided where

vibration analysis has indicated that vibration levels are above the FTA impact threshold.

4. **Moveable point frog turnouts, and spring frog turnouts** at railroad turnouts ("switches" at the junction of two tracks) will be provided to eliminate the gap in the metal casting (called a "frog") where the rails of the two tracks cross at noise and vibration sensitive locations. Moveable point frog turnouts are utilized for frequently used, relatively high-speed junctions of two main tracks; spring frog turnouts are utilized for infrequently used junctions with low-speed side tracks, to mitigate noise and vibration at these locations by eliminating the metal casting gap.
5. **Foundation inspection** of buildings with foundations generally within 25 feet of the track centerline will be conducted by an engineer and foundations will be stabilized if needed to prevent damage due to vibration during construction. The foundations of historic properties will be repaired in accordance with the Department of the Interior's *Standards*. The potential for damage will be determined in accordance with Chapter 12 of the FTA's *Transit Noise and Vibration Impact Assessment* (HMMH, April 1995).

Visual and Setting

Objectives:

- To minimize the visual impact of the Project and related elements in relation to historic buildings and historic districts.
- To identify, retain, and preserve important historic resources and features, including: spatial organization and land patterns; topography, vegetation, circulation (both vehicular and pedestrian) including historic pavements, and structures, furnishings, and objects.
- To provide site improvements and furnishings that are consistent with the surrounding historical and architectural context, including site lighting, fencing, trash receptacles, benches, bicycle racks, handrails at stairs and ramps, shelters, telephone areas.
- To use planting for visual interest and specific programmatic requirements, such as providing shade for pedestrian circulation systems; screening of unwanted views and light sources, framing desirable views, and visual focal points.
- To maintain and enhance where possible existing visual screens.
- To provide new screening at historic properties where possible based on available space.
- To provide Project-related elements and mitigation measures that are compatible with the historic and architectural qualities of the historic buildings, districts, and their settings,

based on a review of existing conditions conducted by the MBTA's design team.

- To maintain uniformity to the extent possible along the line in the types of historically appropriate elements selected to create a coherent visual impression for the Greenbush Line as well as to maintain necessary uniformity in Project elements with the other Old Colony commuter rail lines and the MBTA commuter rail system.

The following design guidelines for visual and setting mitigation will be employed. The introduction of new fencing and landscaping, individually or in combination, will be installed along the right-of-way adjacent to historic properties with the goal to form a reasonable visual screen and to be compatible with the character of the area.

The proposed planting program developed by the design team's landscape architect is intended to utilize a variety of planting schemes in different areas, rather than a uniform, monotype vegetation approach, along the Project corridor in order to provide attractive screening of the right-of-way. The siting of new plantings is based on existing vegetation conditions, new fence type, and available space. Plant height and width at time of planting will be appropriate to the specific location and planting goal. Details on species, size, and spacing of plant materials will be developed during Project 60% and 90% design by the Project landscape architect.

Fences are required along the right-of-way in habitated areas. Fences for specific locations will be selected based on the character of the area and the ability of the fence plus plantings to form an effective screen. Wood fence is generally intended to be used where there is not sufficient room to provide adequate screening with chain link fence and plantings. Picket fence has been substituted for chain link fence in commercial districts where fencing is more visible to the general public.

6. **Chain link fence**, six feet in height, is standard and required throughout the Project in inhabited areas. It is proposed to be black in historic districts and adjacent to individual historic properties, to reduce the visual intrusion of the fence. See illustration.
7. **Wooden fence**, six feet in height, with lap-jointed or similar construction so that the fence provides a solid visual screen will be provided where historic properties are close to the tracks and where a solid fence will provide a better screen than a combination of chain link fence and plantings. See illustration.
8. **Steel picket fence**, painted black, four or six feet in height will be provided within historic district commercial areas to provide a fence type in character with a business area. See illustration.
9. **Shrub planting** along the outside (away from the track) of the fence or wall to soften the

view of the fence or wall, consisting of low evergreen and deciduous shrubs and/or ground cover, will be provided where there is room for only a 3-6 foot planting strip. See illustration.

10. **Mixed planting** along the outside of the fence or wall to provide additional visual screening, consisting of a mix of evergreen and deciduous trees and low-growing shrubs, will be provided where there is room for a 12-20 foot planting strip. See illustration.
11. **Fill-in planting**, consisting of new shrubs or other vegetation, will be provided to fill in gaps in existing landscaping screen plantings outside of fences where necessary and feasible. The plant material will be similar to the existing at that location. See illustration.
12. **Move fence line** back from the property line, into right-of-way and away from historic properties toward the track, to be provided where appropriate to protect existing vegetation or to provide room for new shrubs or other visual screening. See illustration.
13. **Minimize right-of-way width** by constructing fences or walls to provide 21 feet of clearance between the inside points of the wall or fence (approximately 24 feet overall width). This will be provided over short stretches where buildings on one side of the right-of-way are less than 50 feet from those on the other side. See illustration.
14. **Lighting** at stations, layover facilities, and other new locations as appropriate, will be designed to minimize potential light impacts to adjacent properties through the types of fixtures selected, their placement in the landscape, and modifications to the direction of light distribution at individual fixtures by shielding light from adjacent historic properties. The number of posts and fixtures will be minimized consistent with safety and security requirements, and shorter posts will be provided in public pedestrian areas. A combination of modern and traditional light fixtures may be used. Posts will be a dark color. The selection of appropriate fixtures will occur during final design.
15. **Roadway and sidewalk paving materials** will match material used on adjacent sections of roadway or sidewalk or be compatible with the historic character of the area as appropriate except as otherwise required by accessibility standards under the Americans with Disabilities Act (ADA) and the requirements of the Massachusetts Architectural Access Board (MAAB). Granite curbing will be provided at parking lots, grade crossings, and roadway improvements.
16. **Dark colored Project fixtures**, including chain link fence, traffic and railroad signal equipment housings, and traffic signal posts, street light posts, street furniture, and trash enclosures will be provided in historic districts.
17. **Traffic signal and sign posts** – the impacts will be minimized by appropriate siting that reduces visual impact on adjacent historic properties and by limiting the number of

fixtures through placing multiple signs on the same post where possible, consistent with requirements of the Manual on Uniform Traffic Control Devices (MUTCD).

18. **Fixed equipment and facilities** – the siting of these elements, such as station platforms, signal bungalows, station parking lots, maintenance facilities, and layover facilities, will be undertaken to minimize visual intrusion while meeting operational requirements. Appropriate plantings and/or fencing will be used to screen these items from adjacent historic properties, consistent with security and sight distance requirements.

Traffic and Access

Objectives:

- To minimize the impact of changes to traffic patterns and property access on historic districts and adjacent individual historic properties.
- To emphasize safe and attractive pedestrian circulation, including: meeting ADA and MAAB requirements; providing connections to other pedestrian circulation systems; utilizing durable slip-resistant materials compatible with the historic context; separating pedestrian and vehicular circulation; providing site lighting at walkways and station platforms; screening service functions; and framing of special views.
- To accommodate safe and convenient vehicular circulation and parking, including: clear arrival, drop-off, and parking sequencing; site lighting in parking areas, adequate queuing space at roadway intersections and station driveways; and provisions for service and emergency vehicles.

The following design guidelines for traffic and access mitigation will be employed.

19. **Minimize loss of on-street and off-street parking** due to grade crossings and intersection modifications, consistent with requirements of the MUTCD.
20. **Median islands** at grade crossings will be the minimum allowable size and will be located to avoid blocking left turns at driveways, to the extent possible consistent with Federal Railroad Administration safety requirements and regulations for grade crossings without horn blowing.
21. **Driveways relocated or new turnarounds** will be provided where appropriate and feasible to compensate for unavoidable blocking of left turns at driveways.
22. **Access to the rear of buildings abutting the railroad** will be maintained where feasible.

23. **New turnarounds** located where existing roads are terminated at the right-of-way due to grade crossing closures will be designed to be compatible with the character of the historic district and adjacent historic properties consistent with turning requirements. Where established pedestrian routes across the railroad are interrupted by the grade crossing closure an alternative pedestrian route or pedestrian grade crossing will be provided.
24. **Pedestrian access alternatives** will be provided at locations where existing historic pedestrian patterns are disrupted.

Historic Preservation Design Review Participants and Process

The participants in the development of Historic Preservation final design for the Greenbush Project will consist of the MBTA, the Project Conservator, the Corps, the SHPO, and the Towns.

The Project plans are currently in the preliminary design phase. Additional review milestones during final design will be determined in the development of the Project PA, and may include the approximately 60 percent and 90 percent design submission stages. Additional details regarding each of the design items listed in the guidelines will be refined as the final design process goes forward. The review will be coordinated by the MBTA.

Illustrations and Photographs

See attached drawings and photographs.

Attachment B

**Comprehensive Effects and Mitigation Report
Cultural Resources
Braintree, Weymouth, Hingham, Cohasset and Scituate
Greenbush Line Section 106 Review -- Final Environmental Impact Report
Old Colony Railroad Rehabilitation Project
February, 2001**

Attachment C

Archaeological Report References

1. Archaeological Reconnaissance Survey for the Greenbush Line of the Old Colony Railroad Rehabilitation Project: Cohasset, Hingham, Hull, Scituate, Weymouth, Massachusetts (Boire et al.1994);
2. Intensive Archaeological Survey and Additional Reconnaissance Survey for Proposed Locations Along the Greenbush Line Old Colony Railroad Rehabilitation Project, Braintree, Cohasset, Hingham, Scituate, Weymouth, Massachusetts (Boire et al. 1997);
3. Additional Archaeological Reconnaissance and Intensive Surveys and Archaeological Site Examinations of the Litchfield Site (HIN-HA-07), Woodside Site (19-NF-416), and Marshview Site (19-PL-823), Greenbush Line Rail Restoration Project, Braintree, Weymouth, Cohasset, Hingham, and Scituate, Massachusetts (PAL, Interim Report, July 2000);
4. Supplemental Information Package, Interim Archaeological Report (PAL 2000, September 11, 2000)
5. CE&M Report, February, 2001, at Chapters 4 and 5.

Attachment D

**PROCEDURES GUIDING
UNANTICIPATED ARCHAEOLOGICAL DISCOVERIES**

**Greenbush Line Project
Braintree, Weymouth, Hingham, Cohasset, and Scituate, Massachusetts**

Prepared for:

**Massachusetts Bay Transportation Authority
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Prepared by:

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Revised September 2000

Introduction

The purpose of archaeological surveys during the planning of projects is to determine the presence and disposition of EuroAmerican and Native American cultural resources within the project area. These archaeological studies are conducted under Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800). All work is undertaken pursuant to the *Secretary of the Interior Standards for Archaeology and Historic Preservation* (48 Federal Regulations 44716-42 (1983) and the applicable laws and regulations pertaining to the identification, preservation and protection of cultural resources in Massachusetts. These procedures have been developed under 36 CFR 800.11. This section of the law outlines steps for the project proponents to follow when historic properties are discovered during implementation of a project.

The following protocol presents the approach that the Massachusetts Bay Transportation Authority (MBTA) will use to address unanticipated archaeological discoveries other than unmarked burials and human remains during any stage of the undertaking. The protocol includes provisions for adequate measures to treat unanticipated archaeological resources, to consult with the Massachusetts State Historic Preservation Officer (SHPO) and the Corps, and to provide interested parties the opportunity to consult and comment on the treatment of the archaeological resource.

Notification Procedures for Unanticipated Discoveries

The MBTA is committed to the protection and preservation of cultural resources, in accordance with federal and state legislation. The MBTA recognizes that despite the extensive archaeological field investigations that are typically performed prior to project construction, it is nonetheless possible that previously unknown archaeological sites could be discovered during the construction process, particularly during excavation activities. The MBTA recognizes the requirement for strict compliance with federal and state regulations and guidelines regarding the treatment of archaeological resources.

The identification of archaeological resources by project personnel will require basic training in order to recognize potential sites. The purpose of a training program will be to review the MBTA's commitments regarding cultural resource compliance and to provide an overview of the general cultural history of the project so that project personnel will be aware of the kinds of archaeological resources that may be encountered.

The following procedures will be adhered to in the event of a potential archaeological discovery during any stage of the undertaking:

1. Possible artifacts, features, or structural remains (archaeological deposits) may be discovered by contractor construction personnel. In the event that suspected artifacts are uncovered during a construction activity, that activity shall immediately be halted in the vicinity of the possible archaeological deposit until it can be determined whether the materials are cultural and, if so, whether they represent a potentially significant site.
2. Upon notification or discovery of a possible site, the Project Conservator will be responsible for determining whether the possible artifacts are within a previously recorded site area. This will be accomplished by reviewing the project maps or other project data.

3. If the archaeological deposits are discovered in an area in which no sites are recorded, an archaeologist will be called to review the material. On-site project personnel will discuss with the archaeologist the location and type of deposits. Based on the information provided, the archaeologist will determine if a visit to the area is required and, if so, is expected to have crews on-site within 24 hours after notification.

If on-site archaeological investigations are required, the Project Conservator will inform the construction contractor. No construction work at the site that could affect the artifacts will be performed until the archaeologists review the site. The site will be flagged as being off-limits for work, but will not be identified as an archaeological site *per se* in order to protect the resources.

4. The archaeologists will conduct a review of the site and will test the site as necessary. Since the area may have already been partially disturbed by construction activities, the objective of any cultural resource investigations will be to recover data quickly so that an evaluation of the site can be done and construction at the site can continue in a timely manner.
5. The archaeologists will determine, based on the deposits found and on the cultural sensitivity of the area in general, whether the site is potentially significant and whether the SHPO, the Corps, and other interested parties including Native Americans require immediate notification by telephone. If not, data regarding the site will be faxed or sent by express mail to the SHPO and the Corps in order to ensure a quick site clearance.
6. The Project Conservator will work with the SHPO and the Corps to ensure that the site is cleared without affecting the construction schedule, if possible.
7. The archaeologist will notify the Project Conservator of the results of the evaluation of the significance of the discovery. If the archaeologist concludes, and the SHPO and Corps concur that the site is an Historic Property, then a recommendation for site avoidance or data recovery (treatment plan) will be made. Every effort will be made to avoid Historic Properties during construction or implement mitigation measures in consultation with the SHPO and the Corps to avoid damage to the data contained in the site.
8. If data recovery is recommended, the archaeologist shall prepare a data recovery plan (treatment plan) and shall submit the data recovery plan to the SHPO and the Corps for review and comment under the provisions of 36 CFR 800. The archaeologist shall also prepare and submit an application for a state permit from the MHC. The MHC shall provide comment, or issue a permit, on an acceptable research design for data recovery within 48 hours of receipt of discovery plan. Construction in the vicinity of the discovery will not recommence until the data recovery is completed and a management summary is accepted by the MHC and the Corps. The treatment report will be filed within one year of the completion of fieldwork.

Applicable Statutes**1. Federal**

Section 106 of the National Historic Preservation Act of 1966, as amended (16 USC 470F);
36 CFR part 800 AProtection of Historic Properties@

2. Massachusetts

Massachusetts General Laws (M.G.L.) Chapter 9, sections 26-27C (950 CMR 70-71)

List of Contacts**Massachusetts Historical Commission**

220 Morrissey Boulevard

Boston, Massachusetts 02125

Contact: Ms. Brona Simon, Deputy State Historic Preservation Officer, State Archaeologist
(617) 727-8470; FAX: (617) 727-5128

US Army Corps of Engineers, New England District

696 Virginia Road

Concord, Massachusetts 01742-2751

Contact: Ms. Kathleen Atwood, District Archaeologist
(978) 318-8537; FAX: (978) 318-8560

Wampanoag Tribe of Gay Head (Aquinnah)

20 Black Brook Road

Aquinnah, Massachusetts 02535

Contact: Mr. Matthew Vanderhoop, Tribal Historic Preservation Officer
(508) 645-9265; FAX: (508) 645-3790

Attachment E

**PROCEDURES GUIDING THE
DISCOVERY OF UNMARKED BURIALS AND HUMAN REMAINS**

**Greenbush Line Project
Braintree, Weymouth, Hingham, Cohasset, and Scituate, Massachusetts**

Prepared for:

**Massachusetts Bay Transportation Authority
10 Park Plaza
Boston, Massachusetts 02116**

Prepared by:

**PAL
210 Lonsdale Avenue
Pawtucket, Rhode Island 02860**

Revised September 2000

Introduction

The purpose of archaeological surveys during the planning of projects is to determine the presence and disposition of EuroAmerican and Native American cultural resources within the project area. These archaeological studies are conducted under Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800). All work is undertaken pursuant to the *Secretary of the Interior Standards for Archaeology and Historic Preservation* (48 Federal Regulations 44716-42 (1983) and the applicable laws and regulations pertaining to the identification, preservation and protection of cultural resources in Massachusetts. These procedures have been developed under 36 CFR 800.11. This section of the law outlines steps for the project proponents to follow when historic properties are discovered during implementation of a project.

The following protocol presents the approach that the MBTA will use to address emergency discoveries of unmarked burials and human remains during any stage of the undertaking. The protocol includes provisions for adequate measures to identify unmarked burials and human remains, to contact and consult with the Massachusetts State Archaeologist/State Historic Preservation Officer (SHPO) and the Corps, and to provide interested parties, next of kin, descendants, or affiliated groups the opportunity to consult and comment on the treatment of human remains.

Human Remains Discoveries

The treatment of any human remains encountered during any stage of the undertaking will be guided by the Massachusetts Historical Commission's (MHC) fact sheet entitled "Know How #4" *What to do when Human Burials are Uncovered*, the policy statement adopted by the Advisory Council on Historic Preservation ([Advisory Council]; see *Consulting About Archaeology Under Section 106*, Advisory Council 1990), and by the relevant state laws and guidelines. The Advisory Council policy statement recommends that, to the extent allowed by law, treatment of human remains should adhere to the following principles:

- ! Human remains and grave goods should not be disinterred unless required in advance of some kind of disturbance, such as construction;
- ! Disinterment, when necessary, should be done carefully, respectfully, and completely, in accordance with proper archaeological methods;
- ! In general, human remains and grave goods should be reburied in consultation with the descendants of the dead;
- ! Prior to reburial, scientific studies should be performed as necessary to address justified research topics;
- ! Scientific studies and reburial should occur according to a definite, agreed-upon schedule; and

1. Where scientific study is offensive to the descendants of the dead, and the need for such a study does not outweigh the need to respect the concerns of such descendants, reburial should occur without prior study. Conversely, where the scientific research value of human remains or grave goods outweighs any objections that descendants may have to their study, they should not be reburied but should be retained in perpetuity for study.

Notification Procedures

The procedures that will be followed in the event that human remains are discovered during any stage of the undertaking are as follows:

1. If human remains are identified by any personnel on the site, all fieldwork in the immediate vicinity of the site that could affect the integrity of the remains will cease immediately. The remains should not be touched, moved, or further disturbed.
2. The Project Conservator will be informed immediately and notified of the exact location of the remains, as well as of the time of discovery.
3. The Project Conservator will be responsible for notifying appropriate State personnel including the State Archaeologist/SHPO, the Corps, the State Medical Examiner and the State Police. The Medical Examiner will investigate the discovery to determine whether the bones are human, and whether they are recent or more than 100 years old. If the bones are less than 100 years old, a criminal investigation may be warranted. If the bones are more than 100 years old, the Medical Examiner then notifies the State Archaeologist, who immediately conducts an archaeological investigation of the site.
4. The State Archaeologist investigates the site to determine the age, cultural association and identity of the human remains. If the State Archaeologist determines that the remains are that of a Native American, the Massachusetts Commission on Indian Affairs and the Wampanoag Tribe of Gay Head (Aquinnah) will be notified. The State Archaeologist will consult with the Native Americans, the Corps, and the MBTA to determine whether the burial can remain undisturbed. The results of this consultation will be made in writing. If it is not possible to protect the remains, they may be excavated by a professional archaeological team only under a Special Permit (950 CMR 70.20[2]) granted by the State Archaeologist after review of an adequate data recovery plan that specifies a qualified research team and an appropriate research design (950 CMR 70.11[2]); including a proposal for disposition of the remains). Analyses to be performed on Native American remains are discussed in consultation with the Commission on Indian Affairs. After analyses, Native American remains are returned to the Commission on Indian Affairs for disposition.
5. In all cases, due care will be taken in the excavation and subsequent transport and storage of the remains to ensure that the sacred meaning of the remains for Native Americans are respected and protected, as required.

Applicable Federal and State Laws**Federal**

Section 106 of the National Historic Preservation Act of 1966, as amended (16 USC 470F);
36 CFR part 800 AProtection of Historic Properties@

State

Unmarked Burials, Massachusetts General Laws, Chapter 38, sections 6B & 6C; Chapter 9, sections 26-27C (950 CMR 70-71); Chapter 7, section 38A; Chapter 114, section 17; as amended by Chapter 659 of the Acts of 1983 and Chapter 386 of the Acts of 1989.

List of Contacts**Massachusetts Historical Commission**

220 Morrissey Boulevard

Boston, Massachusetts 02125

Contact: Ms. Brona Simon, State Archaeologist/Deputy State Historic Preservation Officer
(617) 727-8470; FAX: (617) 727-5128

US Army Corps of Engineers, New England District

696 Virginia Road

Concord, Massachusetts 01742-2751

Contact: Ms. Kathleen Atwood, District Archaeologist
(978) 318-8537; FAX: (978) 318-8560

Commission on Indian Affairs

One Ashburton Place

McCormack Building, 10th Floor

Boston, Massachusetts 02108

Contact: Mr. Jim Peters, Executive Director
(617) 727-6966

Wampanoag Tribe of Gay Head (Aquinnah)

20 Black Brook Road

Aquinnah, Massachusetts 02535

Contact: Mr. Matthew Vanderhoop, Tribal Historic Preservation Officer
(508) 645-9265; FAX: (508) 645-3790

State Office of the Chief Medical Examiner
720 Albany Street
Boston, Massachusetts 02118
Contact: Mr. Richard Evans, Chief Medical Examiner
(617) 367-6767

State Police Barracks
125 William Day Boulevard
South Boston, Massachusetts 02125
(617) 740-7536

**MEMORANDUM OF AGREEMENT
AMONG
THE DEPARTMENT OF THE NAVY,
THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER,
AND THE
ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE LEASE AND CONVEYANCE
OF THE LONG BEACH NAVAL COMPLEX
LONG BEACH, CALIFORNIA**

WHEREAS, the Department of the Navy (Navy), has determined that the closure and disposal of the Long Beach Naval Station (Naval Station) and the Long Beach Naval Shipyard (Naval Shipyard) (collectively, the Long Beach Naval Complex), as required by the Defense Base Closure and Realignment Act of 1990 (P.L. 101-510, as amended, U.S.C. §2687 note) (BRAC) will have an effect upon the Roosevelt Base Historic District (Historic District) located within the Naval Station, as depicted in the maps attached as Appendices A and B, a property that has been determined eligible for inclusion in the National Register of Historic Places, and has consulted with the California State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (ACHP) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. §470f) (the Act); and

WHEREAS, the City of Long Beach, California (City) has been recognized by the Department of Defense as the Local Redevelopment Authority for the Long Beach Naval Complex, has participated in the consultation and has been invited to concur in this Memorandum of Agreement (MOA); and

WHEREAS, the Long Beach Heritage Coalition (LBHC), the Historical Society of Long Beach (HSLB), the California Preservation Foundation (CPF), the Society of Architectural Historians, Southern California Chapter (SAHSCC), the Center for African American Studies (CAAS), the Los Angeles Conservancy (LAC), the Willmore City Heritage Association (WCHA), and the National Trust for Historic Preservation (NTHP) (collectively, the Interested Parties) have participated in this consultation and have been invited to concur in this MOA;

NOW, THEREFORE, the Navy, the SHPO, and the ACHP agree that the closure, disposal, and reuse of the Long Beach Naval Complex shall be implemented in accordance with the following stipulations in order to take into account the effects of this undertaking on historic properties.

STIPULATIONS

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

I. A. Adaptive Use Alternatives.

The Navy's final Alternative Use Feasibility Study presents two alternative adaptive uses of the Naval Complex, namely, the Auto terminal and Institutional use alternatives. The Navy, SHPO, and ACHP agree that the measures set out in Stipulations I.B. and II.B. through II.G constitute sufficient mitigation to comply with all relevant statutory and regulatory requirements and no further mitigation is necessary to address any effects resulting from these alternative uses, should either be selected and implemented.

B. Historic Preservation Covenant, Nomination and Rehabilitation.

In the event that either of the adaptive use alternatives described in Stipulation I.A. is selected by the appropriate decisionmaker and memorialized in the Record of Decision (ROD), Navy will include in any instrument conveying the Long Beach Naval Complex to a non-Federal government entity the historic preservation covenant that Navy, SHPO, and ACHP agree is appropriate. Within six months following the ROD, the Navy will complete the form nominating the Historic District for inclusion in the National Register and initiate all necessary steps to submit such nomination to the Keeper of the National Register. Under either of the adaptive use alternatives, rehabilitation shall conform with the Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings*, and landscaping shall be restored and maintained in accordance with a plan prepared by a qualified landscape architect.

II. A. Marine Container Terminal/Intermodal Port Facility

In addition to the adaptive use alternatives described in Stipulation I.A., the Navy and the City in the joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR) are evaluating a third use alternative, the marine container terminal/intermodal port facility. Implementation of this alternative will require the demolition of the Historic District. If this alternative is selected by the appropriate decisionmaker and memorialized in the ROD, the Navy shall ensure that no such demolition shall occur until all aspects of the following Stipulations that must be accomplished while the Historic District is intact are concluded. For example, filming for the documentary video described in Stipulation II.F. must be completed prior to demolition while editing the film footage and adding the soundtrack may occur after demolition has commenced.

B. Historic American Building Survey (HABS)

The National Park Service (NPS) has advised the Navy pursuant to Section 110(b) of the Act regarding the level of HABS recordation appropriate for the Historic District. The completed recordation prepared by the Navy was accepted by NPS in a letter dated December 12, 1996. The Navy shall ensure that copies of the HABS recordation are made available to the SHPO and to any local or other archives designated by the SHPO.

C. Curation of Architectural Drawings, Photographs, and Written Histories

1. The Navy shall provide the City with access to make copies of all available architectural drawings, photographs, and the administrative history or histories of the Historic District. Whenever possible, the Navy shall provide originals of such architectural drawings, photographs, and history or histories.

2. The City shall prepare a written curation plan that shall include acceptance letters from the respective curation facilities confirming the facilities' willingness to accept and curate documentation and other archival materials. This plan will be provided to the SHPO and the Interested Parties for review and comments as provided in Stipulation II. Q.

3. The City shall arrange to place the original or reproducible copies of the architectural drawings referenced in Stipulation II.B. in the Architectural Drawings Collection at the University of California, Santa Barbara, California. The City shall also prepare an indexed catalog of these drawings and shall provide this catalog to the SHPO and the Interested Parties for review and comment as provided in Stipulation II.Q.

4. The City shall arrange to place the original photographs, or to the extent there are no such original photographs, then copies of such photographs in the Special Collections at California State University, Long Beach, California after identification and labeling. These photographs or copies are currently located in the Caretaker Site Office Archives located in Building 301 at the Naval Shipyard. Relevant microfilm is also located in Building 301. The City shall produce an illustrated catalog of these photographs that shall include a short illustrative history of the Historic District taken from the HABS materials. This catalog shall be placed in the Special Collections at California State University, Long Beach, California after providing it to the SHPO and the Interested Parties for review and comments as provided in Stipulation II.Q.

D. Exhibit

The City, in coordination with the SHPO and the Interested Parties, shall develop a professional quality storyboard exhibit showing the history of the Historic District and an easily portable three-dimensional model of the Historic District. The cost of the model shall not exceed \$5,000. The exhibit shall address the history of the Historic District or may consider a broader context by showing the role of the Navy in the development of the City. Plans for the exhibit will be developed by the City and provided to the SHPO and Interested Parties for review and comment as provided in Stipulation II.Q.

E. Open House and Tours of the Historic District and Memorabilia Collection

The City and the Interested Parties, individually or collectively if choosing to participate, shall consult to determine if an open house and commemorative tour of the Historic District is feasible and advisable. If so, the City and the participating Interested Parties, with the concurrence of the Navy, shall advertise the selected date and time of the open house and tour in local newspapers and other local media. In no event shall any such advertised date be earlier than fourteen (14) days after obtaining the Navy's concurrence so the appropriate arrangements can be made to permit public access to the Historic District. In addition, historic memorabilia from the Naval Station Complex is already located at the Los Angeles Museum and the Historic Society of Long Beach and is available for viewing at established times.

F. Documentary Video

1. The City shall prepare a professional quality documentary video that shall be at least thirty (30) minutes in length and combine still photographs, any available historic film footage, current film or video footage, oral interviews, narration, and appropriate music documenting each contributing building and structure, including the landscaping, within the Historic District. The City shall provide a concept plan for this documentary video to the SHPO and the Interested Parties for review and comment as provided in Stipulation II.Q.

2. The City shall undertake a one-time distribution and outreach program for the documentary video. This effort will include producing, packaging, and distributing tapes for broadcast and to local public libraries and interested organizations.

G. Salvage of Architectural and Landscape Elements

1. The City shall, in consultation with the Interested Parties, prepare a list of architectural elements with historical or architectural interest located in, on, or around the various buildings and other structures in the Historic District that could be salvaged

and reused, and a plan for the salvage and potential reuse. This plan shall describe each selected element; the salvage method selected; a relocation site, if any, and if no such identified site, then the site where that element will be stored; and the time required to complete the salvage. The time for the salvage shall be no more than 120 days after publishing a decision to proceed with the property disposal. This plan will be provided to the SHPO and the Interested Parties for review and comment as provided in Stipulation II.Q. All costs of removal and storage shall be the responsibility of the City, except in no case shall the City be required to store any such element for longer than ninety (90) days or to incur any of the costs incident to moving any such listed element from storage to a relocation site. The decision whether the salvage of any particular architectural element is too costly shall be reserved solely to the City. However, within 30 days of the City's determination, the Interested Parties may, either individually or collectively, request that such party be allowed to salvage the element at that party's cost. The City shall work with such Interested Parties or Party to facilitate the salvage, provided that any such salvage will be completed within the time specified in and for the City's plan.

2. The City has developed a tree location plan by a licensed arborist that will be implemented if the marine container terminal/intermodal port facility alternative is selected. The City will take all reasonable measures to provide historic planting materials not utilized in the tree relocation plan, including the historic rose bushes, to appropriate recipients.

H. Long Beach Heritage Fund

1. The marine container terminal/intermodal port facility alternative requires demolition of the Historic District. If that alternative is selected by the appropriate decisionmaker, the City shall deposit, within 5 business days prior to commencement of demolition of the Long Beach Naval Complex, the sum of \$4,500,000.00 into an escrow account with SHPO as escrow holder to be held with interest by SHPO pursuant to Section 5079.11 of the California Public Resources Code (CPRC).

2. When all contributing properties in the Historic District have been demolished, SHPO as escrow-holder shall direct that said sum and any interest accrued thereon, be deposited within the Long Beach Heritage Fund (LBHF), which shall be established within the California Heritage Fund (CHF) and administered as described below.

3. If at any time, the City is enjoined or prevented from demolishing the Historic District for purposes of the marine container terminal/intermodal port facility alternative, then the SHPO, as escrow holder, shall direct that said sum, together with any accrued interest thereon, be returned to the City.

4. In consultation with the SHPO and the City, LBHC, LBHS and the WCHA shall establish a Long Beach Navy Memorial Heritage Association (LBNMHA), which shall operate as a nonprofit public benefit corporation pursuant to Section 501(c)(3) of the Internal Revenue Code of 1954 or the corresponding provisions of any future United States Internal Revenue Code. The LBNMHA shall be established in accordance with Section 5079.22 of the CPRC to administer the LBHF within the CHF. The SHPO shall review the articles of incorporation of the LBNMHA and shall approve them upon determining that they are consistent with Section 5079.22 of the CPRC. The LBHF shall be established within the CHF by the SHPO and the Controller in accordance with Section 5079.11 of the CPRC for the express purpose of fostering and supporting the identification, evaluation, preservation, rehabilitation, restoration and interpretation of historical resources within the municipal boundaries of the City. Administration and operation of the LBHF shall be consistent with the general purposes and intent of Section 5079 et seq. of the CPRC and shall conform to the fiscal provisions set forth in Sections 5079.40, 5079.62(a), and 5079.64 of the CPRC.

I. Personnel Qualifications

The Navy, in cooperation with the City shall ensure that all historic preservation work pursuant to this MOA and involving the planning for and physical rehabilitation of historic structures or the salvage of elements of historic structures is carried out by or under the direct supervision of a person or person meeting, at a minimum, the Secretary of the Interior's *Professional Qualification Standards* (48 FR 44738).

J. Reporting

The Navy and the City will notify all parties when all terms of the MOA have been satisfied.

K. Discoveries

The City shall notify the SHPO as soon as practicable if it appears that this undertaking will affect a previously unidentified property that may be eligible for inclusion in the National Register or affect a known historic property in an unanticipated manner. The City shall stop construction in the vicinity of the discovery and will take all reasonable measures to avoid or minimize harm to the property until the City concludes consultation with the SHPO. If the newly discovered property has not previously been included in or determined eligible for inclusion in the National Register, the City may assume that the property is eligible for purposes of this MOA. The City will notify the SHPO at the earliest possible time and consult to develop actions that will take into account the effects of the undertaking. The City will notify the SHPO of any time constraints, and the City and the SHPO will mutually agree upon time frames for this consultation. The City will provide the SHPO with written

recommendations that take the effects of the undertaking into account. If the SHPO does not object to the City's recommendations within the agreed upon time frame, the City will modify its scope of work as necessary to implement its recommendations.

L. Duration of MOA

This MOA shall remain in effect until all stipulations have been fulfilled.

M. Definition of Signatories

The Navy, the SHPO, and the ACHP are the signatories to this MOA.

N. Dispute Resolution

Should any signatory or concurring party object within thirty (30) days to any action(s) provided for review pursuant to this MOA, the Navy shall consult with the objecting party to resolve the objection. If the Navy determines that the objection cannot be resolved, the Navy shall forward all documentation relevant to the dispute to the ACHP and notify the remaining parties as to the nature of the dispute. Within thirty (30) days of receipt of all pertinent documentation, the ACHP shall either: 1) provide the Navy with recommendations, which the Navy shall take into account in reaching a final decision regarding the dispute; or 2) notify the Navy that it will comment in accordance with 36 CFR §800.6(b). Any ACHP comment provided in response to such a request will be taken into account by the Navy in accordance with 36 CFR §800.6(c)(2) with reference to the subject of the dispute. Any recommendation or comment provided by the ACHP will be understood to pertain only to the subject of the dispute and the Navy's responsibilities to carry out all actions under this MOA that are not the subject of the dispute will remain unchanged.

O. Public Objections

At any time during the implementation of the measures stipulated in this MOA should an objection be raised by a member of the public, the Navy shall take the objection into account, notify the SHPO and the ACHP of the objection, and consult as needed with the objecting party.

P. Amendments

Any signatory to this MOA may request that it be amended, whereupon the signatories and the concurring parties will consult in accordance with 36 CFR §800.5(e)(5) to consider such amendment.

Q. Review and Comment Procedures

Whenever a Stipulation in this MOA provides for review and comment by the SHPO, the Interested Parties, or the ACHP, the Interested Parties will be allowed thirty (30) days after receipt of all pertinent documentation, and the SHPO and the ACHP will be allowed forty (40) days after receipt of all pertinent documentation to provide comments to the requesting party. The requesting party shall immediately forward copies of comments by the Interested Parties to the SHPO and the ACHP, as appropriate, to facilitate review by these parties. The failure of any signatory or Interested Party to comment within the time frames shall not prevent the requesting party from finalizing the document provided for review. Any objections to the submitted documents or actions provided for review shall be resolved pursuant to Stipulation II.N.

R. Failure to Carry out the Terms of this MOA

In the event that the terms of this MOA are not carried out, the Navy shall notify the signatories and the concurring parties and request the further comments of the ACHP pursuant to 36 CFR Part 800. If the Navy cannot carry out the terms of the MOA, neither the Navy nor the City will take or sanction any action or make an irreversible commitment that would result in an adverse effect to the historic properties covered by this MOA, or that would foreclose the Council's consideration of modifications or alternatives that could avoid or mitigate the adverse effects on historic properties until the commenting process has been completed.

S. Covenant Not To Sue

This MOA shall not become effective until the document entitled Covenant Not To Sue (the Covenant) included as Appendix C has been executed at least by the following Interested Parties: LBHC, HSLB, WCHA, and NTHP. If a lawsuit is filed by any of the signatories to the Covenant, the City's obligations under Stipulation II.H. shall be terminated immediately at the option of the City, and, if the City so requests, any money paid pursuant to Stipulation II.H. shall be refunded to the City, and the signatories and concurring parties will immediately consult in accordance with 36 CFR Part 800.

EXECUTION OF THIS Memorandum of Agreement by the Navy, the SHPO, and the Council, and implementation of its terms evidences that the Navy has afforded the Council with an opportunity to comment on the disposal and reuse of the Long Beach Naval Complex and its effects on historic properties and that the Navy has taken into account the effects of the undertaking on historic properties.

(Signatures begin on next page)

DEPARTMENT OF THE NAVY

By: *TM Boothe* Date: JANUARY 20, 1998

Thomas M. Boothe
CAPTAIN, U.S. Navy
Civil Engineers Corps
Commander
Southwest Division
Naval Facilities Engineering Command

*CST
1/21*

CALIFORNIA STATE HISTORIC PRESERVATION OFFICER

By: *Cheryl E. Widell* Date: January 27, 1998

Cheryl E. Widell
State Historic Preservation Officer

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: _____ Date: _____

Catherine B. Slater
Chairman

*This MOA represents the agreement of the parties attending the 1/27/98
consultation meeting. UK*

CONCUR:

CITY OF LONG BEACH, CALIFORNIA

*GK
1-27-98*

By: _____ Date: _____

LONG BEACH HERITAGE COALITION

By: Charlotte M Mitchell Date: 01-27-98

HISTORICAL SOCIETY OF LONG BEACH

By: Lond Hatley Date: 1/27/98

WILLMORE CITY HERITAGE ASSOCIATION

By: Carol Daddard Date: Jan 27, 1998

NATIONAL TRUST FOR HISTORIC PRESERVATION

By: Patricia Date: 2/7/98

CALIFORNIA PRESERVATION FOUNDATION

By: _____ Date: _____

LOS ANGELES CONSERVANCY

By: _____ Date: _____

From: [Preston, Heather](#)
To: [Ball, Nathaniel I SAC](#)
Cc: [Williams, Blair N.](#); [Hightower, Charles](#)
Subject: [EXTERNAL] Re: Union Pier Terminal- Draft Public Notice (UNCLASSIFIED)
Date: Tuesday, July 21, 2015 4:25:33 PM

Nat,

Thanks for the opportunity to review the Public Notice. As requested, we are confirming that the project as proposed does not require a 401 Water Quality Certification.

Additionally, we suggest adding, "evaluates projects in compliance with the South Carolina Coastal Zone Management Act (48-39-10 et.seq.)" to the first sentence of the paragraph that lists SCDHEC's review authority.

Thanks again!

Heather Preston, Director
Water Quality Division
SCDHEC - Bureau of Water
803-898-3105

From: Ball, Nathaniel I SAC <Nathaniel.I.Ball@usace.army.mil>
Sent: Tuesday, July 21, 2015 11:40 AM
To: Preston, Heather
Cc: Williams, Blair N.; Hightower, Charles
Subject: RE: Union Pier Terminal- Draft Public Notice (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Heather,

As we discussed yesterday, I appreciate the clarification that no 401 Water Quality Certification is required for this project. Since the Critical Area Permit and CZM have already been issued, and also because SCDHEC has determined that a 401 WQC is not required, we are planning to issue a Corps-only Public Notice. Please review the revised Public Notice and confirm that the draft language is consistent with SCDHEC's position.

Thanks,

Nat

-----Original Message-----

From: Ball, Nathaniel I SAC
Sent: Thursday, July 02, 2015 1:05 PM
To: Williams, Blair N.; Hightower, Charles
Subject: Union Pier Terminal- Draft Public Notice (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Blair/Chuck,

This past week the SCPA submitted 2 DVDs that include the entire Administrative Record (40,000+ pages) for the State lawsuit. Since the Critical Area Permit was issued 18+ months ago, I have asked the SCPA to update the

adjacent property owners list before we issue a Public Notice. In the meantime, I have prepared a draft Public Notice and wanted to run the following draft language by you:

[The South Carolina Department of Health and Environmental Control (SCDHEC) reviews projects in navigable waters of the State in accordance with provisions of Section 401 of the Clean Water Act, certifies projects as consistent with applicable provisions of the Coastal Zone Management Program (15 CFR 930), and evaluates projects for compliance with the S.C. Construction in Navigable Waters Permit Program. In this case, SCDHEC issued a Critical Area Permit for the proposed project on December 18, 2013. According to SCDHEC, no additional authorizations are required from SCDHEC to conduct the proposed work as shown on the drawing sheets that are included in this Public Notice.]

Since SCDHEC has already issued a Critical Area Permit, I am planning to issue a Corps only Public Notice. Please feel free to call or email me if you have any questions or would like to discuss.

Thanks,

Nat

Nathaniel I. Ball
Special Projects Branch
U.S. Army Corps of Engineers
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Revised

Regulatory Programs Division Decision Document
Impact Assessment for UTILITIES
Office of Ocean and Coastal Resource Management - SCDHEC

ADMINISTRATIVE SUMMARY OF REVIEW

Commenting Agencies

DHEC - 401: N/A
SCDNR: NOBJ
SPA: NOBJ
SCDAH: _____
SCDAA: _____
Others: See attached Lists

Adjoining Property Owners

see 1 of 1

Agent or Contact

Business Ph: _____
Fax Number: _____

*NOTE: See list of Interested Persons on Reverse
APO's Notified... Initial & Date: VH 3-9-12
Local Government Notified... Initial & Date: VH 3-9-12
Revised APO's VH 3-23-12
Govt VH 3-23-12

APPLICATION REQUIREMENTS

Please Circle When Complete YES

Letters to Applicant

Clock Stop/Start Dates (PM)

Administrative Fee received N/A
Aff. Of Ownership received 3-2-12
Certified Deed, plat or lease 3-2-12
State Newspaper ad received _____
Date Published _____
Which Paper _____
County News ad received 10/18/12
Date Published 3/12/12
Which Paper PLC

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

LETTER OF OBJECTIONS SUMMARY

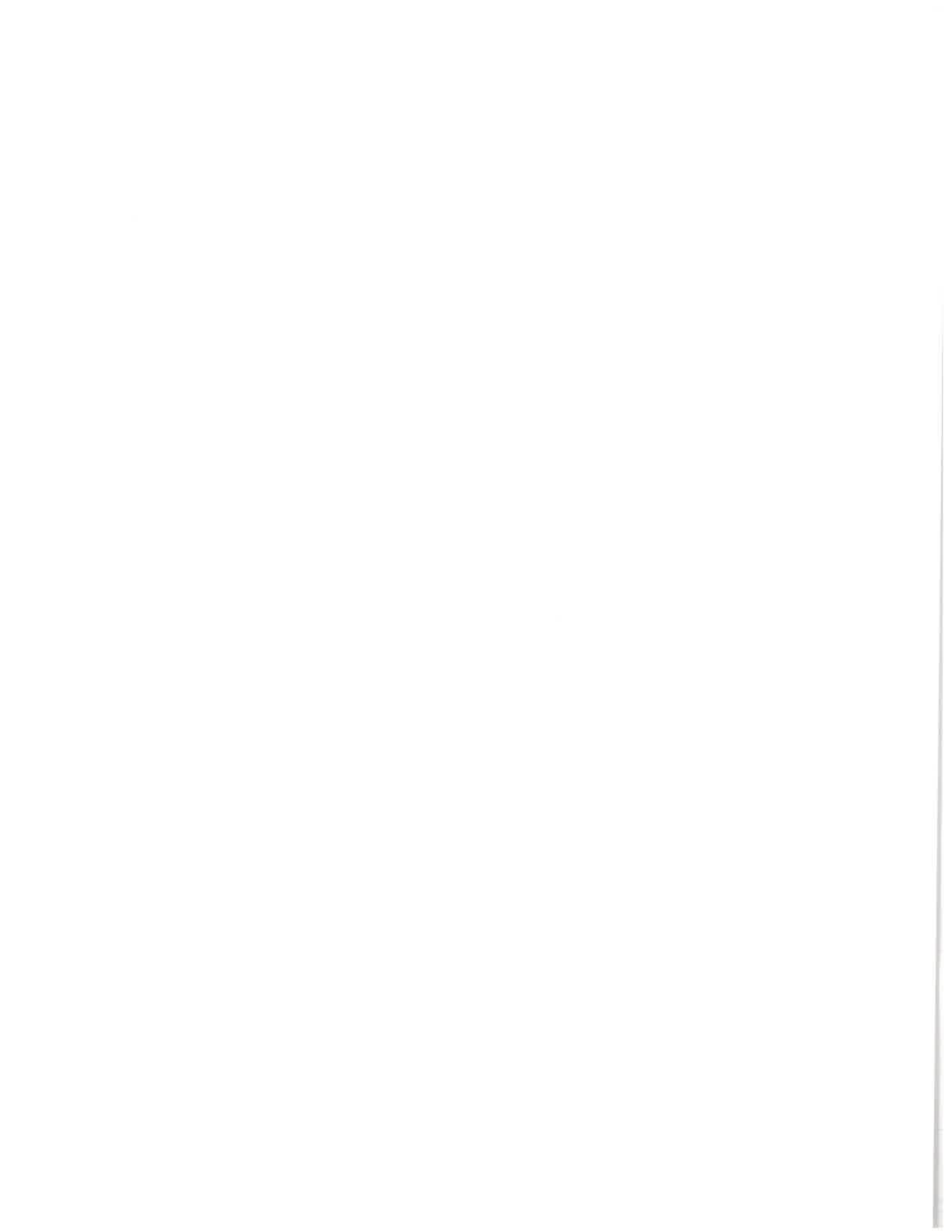
Objector(s) name and address that must be notified by certified mail and copy of the decision.
(has to specifically request a copy of the decision in the letter)

see next page 1/3 C1, C2, C3
Steven Brooks 12/18/12

Objector(s) name and addresses that must be notified by issue memo with no copy of the decision
(does not specifically request a copy of the decision in the letter)

see next pages I 1 through I 14
Steven Brooks 12/18/12

Exhibit D



Union Pier and environs



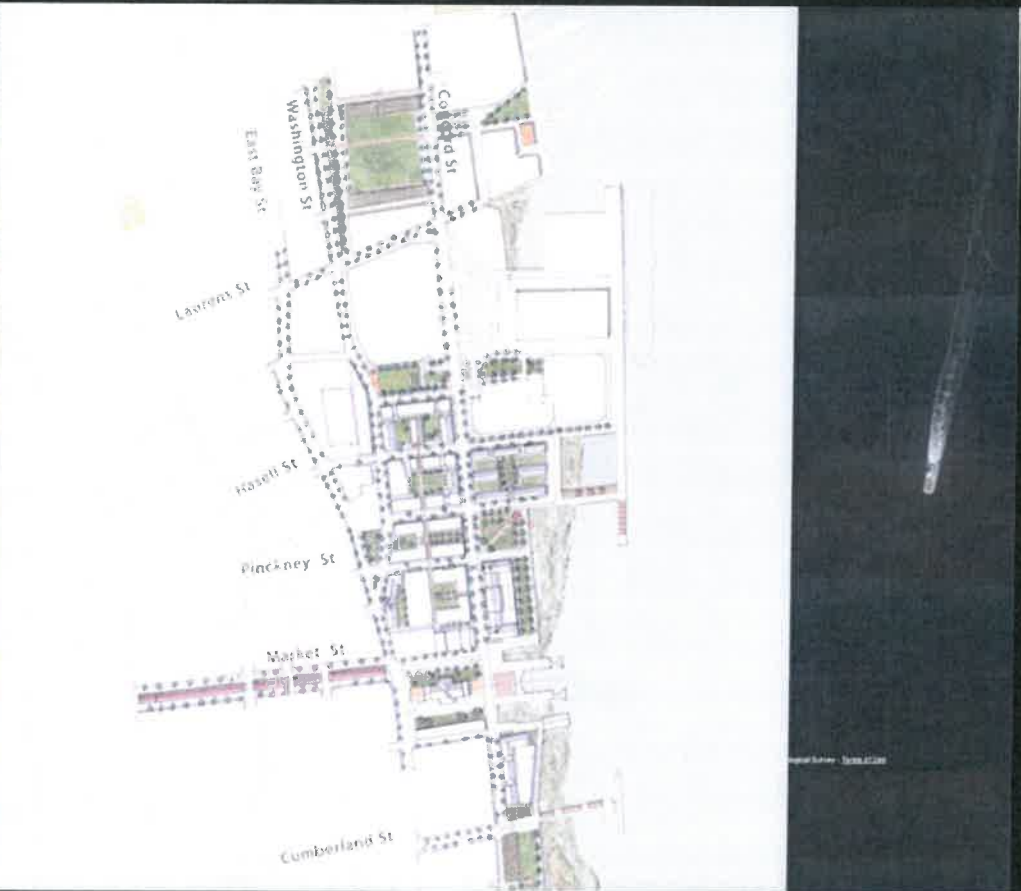
Existing conditions

Union Pier and environs



Existing conditions – with cruise terminal study area outlined

Union Pier and environs



Concept Plan

Union Pier and environs



Concept Plan – Cruise terminal study area

Union Pier and environs



Re-envisioned cruise terminal

Union Pier



Concept Plan – Cruise terminal study area

Union Pier and environs



As shown in the Cooper Robertson Concept Plan

Union Pier and environs



Re-envisioned by the Coastal Conservation League

Union Pier and environs



Existing conditions

Union Pier and environs



Proposed redevelopment plan

Union Pier and environs



Proposed redevelopment massing

Union Pier and environs



Proposed redevelopment

site economics

- assumptions are conservative
 - costs added premium for project quality and difficulty
 - revenue assumptions at mid-market for this area
 - developer profit higher than typical
 - remediation cost included

site program

- 994 Residential Units
- 80,000 sq. ft. commercial development
- Approx. 6.5 acres of open space

development cost

- site costs (roads, lighting utilities)
 - derived from engineering estimate for a redevelopment site
 - added $\pm 40\%$ for contingency

development cost

- commercial cost

- derived from local cost plus 20% premium for higher quality
- includes \$40 tenant improvements
- includes fire separation cost

development cost

- residential cost
 - derived from local cost plus 25% premium for higher quality
- Site courtyards, landscaping
 - \$9.6 million for first class amenities

development cost

- Parking

- cost lowered by use of tuck under parking at flood level
- 1599 spaces plus 42 on street
- overall cost of ±\$11.5 million

development cost

- non-construction costs:
 - includes design, approvals financing and carry
 - ratio of 30% used (20% is typical) to allow for complexity of project

development cost

- total Costs:

- commercial: \$214 per square foot
- residential: \$185 per square foot
- total base estimate: \$275,553,000

project revenue

- commercial lease rate: \$28 triple net value
 - market rates: \$25 to \$35
- residential Value: \$400/sf
 - market rates: \$325 to over \$650

value created

- commercial value: \$24.9 million
- residential value: \$477.1 million
- developer profit at 30% return on cost: \$82.7 million
- Total real estate value: \$500-532 million

value created

- residual land value after developer profit and costs:

- \$102.7 million

- \$3.28 million per acre

feasibility

- site density supports retail
 - if all commercial goes to retail site residents can support 100% of sales

feasibility

- Unique location yields high value
 - site has a national market — but
 - construction costs are local
 - therefore yield is high

