EXECUTIVE CHAMBER

CITY OF WARWICK **RHODE ISLAND**

SCOTT AVEDISIAN
MAYOR

June 3, 2009

Mr. Richard Doucette
Manager, Environmental Programs
FAA, New England Region
12 New England Executive Park
Burlington, Massachusetts 01803

T.F. GREEN AIRPORT IMPROVEMENT PROGRAM ENVIRONMENTAL IMPACT STATEMENT (EIS)
PUBLIC INFORMATION MEETING JUNE 3, 2009 WARWICK, RHODE ISLAND

Dear Mr. Doucette:

The City of Warwick is submitting the attached for inclusion in the public record of the meeting conducted by the Federal Aviation Administration (FAA) this evening at the Crowne Plaza Hotel. Our submission includes the City's comments on the studies and findings contained within the Draft *Environmental Consequences and Mitigation Technical Report* (dated March 11, 2009 and prepared by Vanasee Hangen Brustlin, Inc. (VHB)), which includes a new alternative, B4, for the Draft Environmental Impact Statement (EIS) for the proposed improvements at T F Green State Airport in Warwick, Rhode Island (PVD).

Because the FAA has decided to hold a workshop forum for this public meeting, with no centralized area or specific time for interested parties to submit comments, our study of and response to the DEIS collectively addresses all aspects of the DEIS and the City's substantial concerns. This submission shall be considered the official City comment to be included in the administrative record associated with the June 3, 2009 public meeting, as the issues raised by the City of Warwick to the FAA and the Rhode Island Airport Corporation weeks ago still have not been addressed.

Attached you will find a list of comments, concerns and recommended additions that we request be included in the DEIS prior to finalizing the selection of a preferred alternative

3275 Post Road • Warwick, RI 02886 • (401) 738-2000 • FAX (401) 738-6639

Thank you for your anticipated cooperation in addressing these concerns to the City's satisfaction. If you should have any questions, please contact Mark Carruolo, Planning Director, at (401) 738-2000, ext. 6289.

Sincerely,

Scott Avedisian

Mayor

City of Warwick Comments

June 3, 2009

City of Warwick Response to:

Public Information Meeting
June 3, 2009 Crowne Plaza Hotel at the Crossings Warwick, RI

T.F. Green Airport Improvement Program Draft Environmental Impact Statement (DEIS), T.F. Green Airport Warwick, Rhode Island

5.1 Introduction
5.2 Noise
5.3 Compatible Land Use
5.4 Socioeconomic Impacts
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5.12 Fish, Wildlife, and Plants
5.13 Threatened and Endangered Species
5.14 Floodplains
5.15 Coastal Resources
5.16 Farmlands
5.17 Hazardous Materials, Pollution Prevention
5.18 Light Emissions

Comments submitted by:

Mayor Scott Avedisian, City of Warwick

Warwick Planning Department

Mark Carruolo, Planning Director

William DePasquale Jr., AICP, Principal Planner

The City of Warwick objects to the selection of B4, the build option, as the preferred alternative for the proposed improvements at T.F Green State Airport in Warwick, Rhode Island (PVD). Of paramount importance is the fact that the study fails to address numerous concerns presented by the City of Warwick in documents filed with the FAA on May 2, 2007 and again on March 11, 2009 in response to the *Draft ENVIRONMENTAL CONSEQUENCES AND MITIGATION TECHNICAL REPORTS* prepared by Vanasse Hangen Brustlin, Inc. (VHB).

The study contains significant omission of pertinent data as well as flawed findings predicated on assumptions based on year 2004 forecasts and assumptions of service and fleet mix that are no longer valid creating a misleading and false rationale for the selection of the B4 preferred alternative. The flawed assumptions and incomplete analysis promote mitigation, not avoidance, of adverse affects on the environment, public health, and quality of life of residents within the host community. The underlying premise of this proposal is that Warwick, the host city, should accept, without limit or argument, a project that would adversely affect the City of Warwick presenting unacceptable noise, air quality, socioeconomic and environmental justice issues.

The DEIS study does not fully disclose the true cumulative impacts of past and future airport operations on the community. The selection of preferred alternative B4 is based on a determination that the mitigation of environmental impacts proposed are adequate even though the baseline used to determine the success of the mitigation is based on a continually deteriorating baseline condition.

For years, The City's residents have been required to bear the incremental burdens associated with operations of the airport, which is located in the geographic center of Warwick. As it has grown, the airport's land use has also developed more incompatible and has placed an increased burden on surrounding neighborhoods, which existed for decades prior to the airport's expansion in the 1990s. The approach taken tacitly within the DEIS study and by some proponents is that families living in these areas are expected to accept the airport's encroachment and live with the uncertainty, less than effective mitigation, noise and air pollution that families that live outside the airport influence area do not have to deal with.

This study perpetuates this philosophy by ignoring the City's concerns and updated information that should have been used in the DEIS analysis to minimize the adverse impacts of the build option on the host community and its residents. Instead, it offers incomplete analysis and partial mitigation solutions that are inadequate and not clearly defined. For example, the study relies heavily on what has been a less than timely voluntary land acquisition program (VLAP) offering no concrete funding sources or a schedule tied to specific construction projects. In addition, the FAA's DEIS document does not include a fair acquisition plan to preserve neighborhood continuity and fails to address how it will compensate the City for the loss of recreational ball fields and roughly $1 million loss of annual tax revenue from commercial and residential properties that will be "taken" during this process.

The study's evaluation of impact from noise, effect on air quality and wetlands offers only biased and limited mitigation proposals discounting the cumulative adverse impacts placed on the surrounding community. It also ignores a study of hazardous air quality issues that extend to a nearby schoolyard, even though a 2007 Rhode Island Department of Environmental Management air monitoring study showed concern for black carbon emitted by aircraft. Other assertions, such as those made concerning assimilation of affordable housing stock, are unsupported and contrary with the City's comprehensive housing plans and the well-documented and publicized affordable housing needs of the State of Rhode Island.

Overall, the selection of the B4 option of the preferred alternative occurred without a substantive reply to the City of Warwick's concerns on these and other matters even though these issues were presented in letters to the FAA and reiterated numerous times on the public record throughout the Master Plan and DEIS process.

The DEIS analysis appears to be advocating for the City's fiscal interests, yet clearly overstates the positive economic benefits of the B4 alternative by relying on outdated, 2004 forecasts, fleet mix, load factors, and assumption of nonstop service to "prop up" the selection of the B4 build option to meet an outdated "Purpose and Need Statement." The presumed economic benefit is based on an assumption of new non-stop west coast service based on 2004 conditions. The service was only assumed to occur but not guaranteed and, in fact, is less likely to occur in 2009 than in 2004 given the dramatic changes in the airline industry and the worldwide economy in general. In fact, this study's 2004 baseline forecast directly conflicts with the actual 16.3%, annual decrease in passenger traffic at T.F Green Airport and the FAA's own revised passenger forecasts, which were adjusted downward by 8% annually – changing the projected year that U.S. airlines would reach a billion passengers from 2016 to 2021.

The FAA's refusal to supplement the 2004 baseline data and "key" assumptions ignores its own forecasted changes that reflect higher oil prices, a historic credit crisis and deep recession that have fundamentally changed the airline industry. Airlines are streamlining their businesses, placing a premium on efficiency improvements, increasing load factors and eliminating the use of large aircraft with old engine sets to serve non-stop west coast destinations, as they prove too inefficient.

Principally, the lack of consideration for a change in fleet mix (aircraft) creates a contrived, need-based argument based on the use of an antiquated aircraft type that is not consistent with the manner in which the airlines are currently operating. An update of the 2004 fleet mix will demonstrate that "the market" is dictating use of newer aircraft with greater performance characteristics that would require a shorter runway and have ***fewer*** "Environmental Consequences." The blatant omissions of these facts appear to be a deliberate attempt to skew the analysis in support of the preferred alternative.

The City of Warwick finds the FAA's selection of B4 as the preferred alternative to be based on faulty data and inaccurate assumptions, and lacking in its consideration of the cumulative impact of past and proposed airport actions. Proceeding with a project based on these flaws creates a preferred alternative that proposes excessive, adverse impacts to the community and environment that are not needed and cannot be mitigated properly. The argument that existing conditions are already compromised so additional changes will not be a problem is not one that is appropriate or acceptable to the City of Warwick and its residents.

To date, the FAA's response to the City's myriad of noise, environmental, fiscal, housing, transportation, land use and quality of life issues concerns as they relate to the preferred alternative B4 has been less than satisfactory and, at best, incomplete. The DEIS needs to take into consideration the City's very real and reasonable concerns and address these issues with comprehensive solutions based on current data, accurate studies and an understanding that the airport is situated in the middle of a community that has existed long before its most recent expansion.

The City of Warwick evaluated the accuracy of the input data and assumptions contained within the *"Environmental Consequences and Mitigation Technical Report dated March 2009"* together with its objectivity, analysis, assessment of cumulative impacts and adequacy of avoidance, minimization and mitigation measures to determine this document's consistency with the National Environmental Policy Act (NEPA) Statute and Council on Environmental Quality (CEQ) Regulations. In addition to aforementioned review, the City of Warwick sought guidance from the National Environmental Policy Act (NEPA) Environmental Impact Statement (EIS) Rating System Criteria that we have slightly modified to assist in our evaluation. As an index of our major concerns, each section was evaluated and assigned:

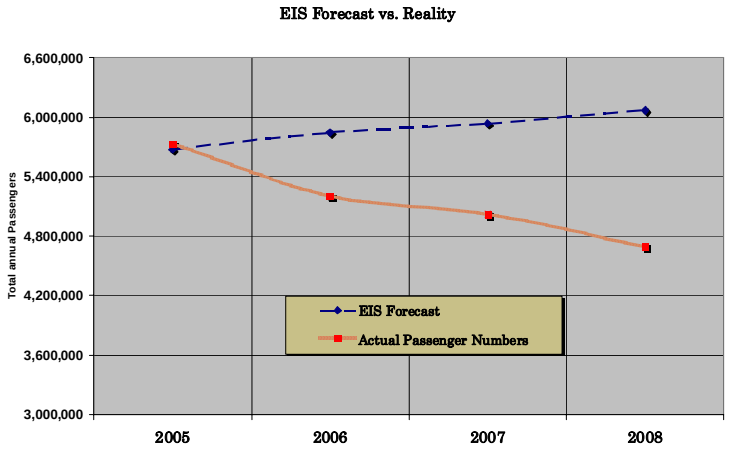
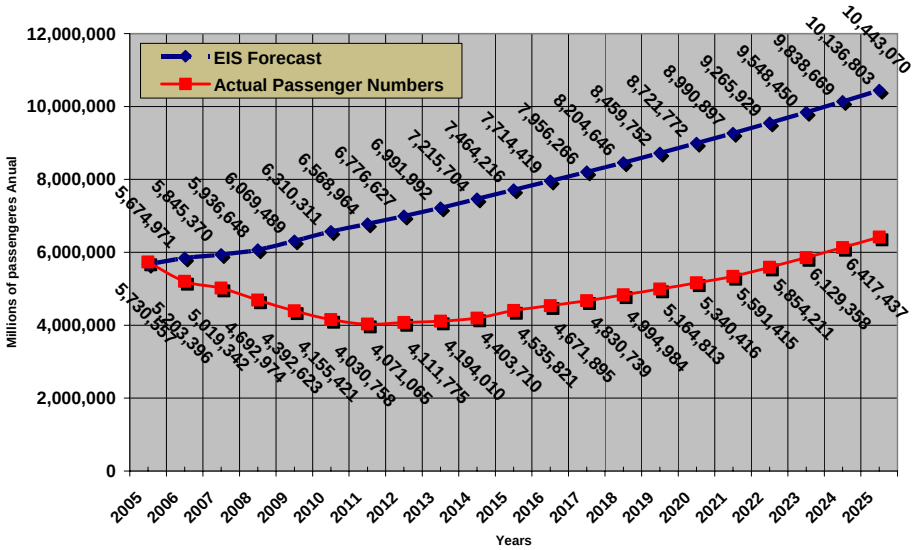
Adequate - The draft EIS adequately sets forth the environmental impact(s) of the Build options and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Insufficient Information - The draft EIS does not contain sufficient information to fully assess environmental impacts that should be avoided in order to fully protect the community and environment, or the City of Warwick has identified new data and/or reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce community and environmental impacts of the build options. The identified additional information, data, analyses, or discussion should be included in this document.

Inadequate- The draft EIS does not adequately assess the potential significant community and environmental impacts of the build options, and/or lacks sufficient study of incremental impacts of past and present airport actions that collectively result in significant adverse impacts over time, or the City of Warwick has identified new, reasonably available, alternatives, or areas of study that are outside the current spectrum of study analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant community and environmental impacts. The identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. This rating indicates the City of Warwick believes that the draft EIS does not meet the purposes of NEPA and must be formally revised and made available for public comment in a supplemental revised draft EIS.

Index of Major Concerns

5.1 Introduction	**Inadequate/Insufficient Information**
5.2 Noise	**Insufficient Information**
5.3 Compatible Land Use	**Inadequate**
5.4 Social and Socioeconomic Impacts	**Inadequate/Insufficient Information**
5.5 Environmental Justice and Children's Health and Safety Risk	**Inadequate/Insufficient Information**
5.6 Surface Transportation	**Insufficient Information**
5.7 Air Quality	**Inadequate /Insufficient Information**
5.8 Historic, Architectural, Archaeological, and Cultural Resources	**Insufficient Information**
5.9 Section 4(f) and 6(f) Resources	**Inadequate/Insufficient Information**
5.10 Wetlands and Waterways	**Inadequate**
5.11 Water Quality	**Inadequate**
5.12 Fish, Wildlife, and Plants 5.13 Threatened and Endangered Species	**Inadequate**
5.14 Floodplains 5.15 Coastal Resources	**Insufficient Information**
5.16 Farmlands	**Adequate for likely B4 option**
5.17 Hazardous Materials, Pollution Prevention, and Solid Waste	**Insufficient Information**
5.18 Light Emissions	**Insufficient Information**

1 Introduction	❖ Object to the underlying (implicit/explicit) arguments by RIAC and FAA that legitimizes the expansion plans and mitigation based on the premise that this project has been going on "long enough". This argument promotes a premature conclusion, less than comprehensive analysis of the facts and what seems to be a rather cursory public review. ❖ The study does not include the fundamental changes and precipitous drop in passenger traffic contained in the actual 2005-2008 dataset at T.F Green Airport showing that between the years 2005 to 2008 there has been a *-11%*, *-15.45%* and *-22.68%* annual decreases in passenger traffic.  ❖ The study does not mention the FAA's latest forecast projections that were drastically revised downward. The FAA expects domestic boarding's on major U.S. airlines to fall 8.8 percent, and 2.4 percent internationally in 2009. The FAA also stated the 2009 forecast was drastically different from the 2008 prediction that the U.S. airlines would reach a billion passengers by 2016. According to the FAA, revised 2009 forecast a billion passengers would not be reached until 2021. ➢ Object to the use of the 2004 baseline assumptions in: air service, market demand, load factor, fleet mix, economic growth, fuel costs, passenger growth projections, service destinations and business practices of the air carriers. *EIS Forecast vs. Actual Trend* 

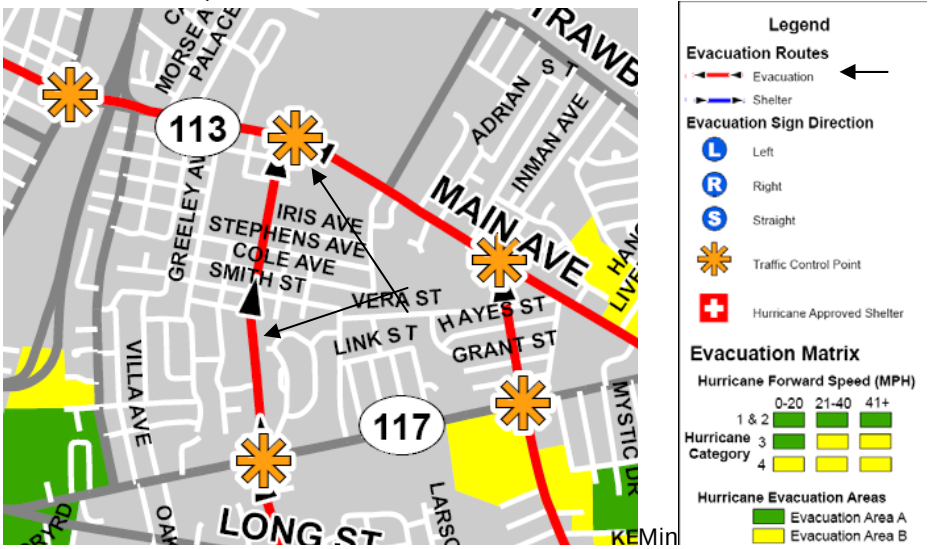
5.1 Introduction 5.2 Noise	❖ Reality refutes the 2004 key assumptions used in this study particularly the nonexistent market for non-stop west coast destinations from medium hub airports and the radical changes in the business model of some of the largest air carriers as represented by the Southwest Airlines decision to commence air service at Boston Logan International Airport, reversing their long standing business practice of avoiding large hub airports. ➢ This fleet assumption is no longer valid in 2009 given the fiscal burdens thrust upon the air carriers that force efficiency improvements that often include phasing out use of the less efficient older aircraft on routes that have low load factors. ❖ The noise analysis is outdated as it uses the 2004 fleet mix of aircraft that assumes the use of the least efficient heaviest aircraft that drives runway length. ❖ Reality refutes the 2004 key assumptions used in the fleet mix assumptions aircraft that drives the longest of runway lengths particularly the use of the B767-300 with the JT9D engine set the as the critical design aircraft and the use of the B737-500 as a "non-stop west coast capable aircraft" that are not likely to service non–stop coast-to-coast service from 2007 to 2025. *(see Mayor Avedisian letter to LaVerne F. Reid then Manager, Airports Division Federal Aviation Administration New England Region Burlington, MA 01803 dated December 3, 2007)* ➢ The City of Warwick requests updates of the five-year-old operational fleet mix and include the CNEL and SEL metrics as components of supplementary noise analysis. *(Noise events during a period with a lower ambient background condition exposes surrounding homeowners to a much higher perceived noise and annoyance than that measured by the DNL average metric.)* ❖ The City of Warwick objects to this project's use of versions 6.1 of the Integrated Noise Model (INM), outdated by the version 7.0 of this program.

5.3 Compatible Land Use	❖ Object to the term "voluntary" land acquisition to minimize the perceived impact of the proposed actions. The emphasis on "voluntary" is misleading because the DEIS assumes one hundred percent participation with an actual participation rates as high as ninety percent this recommended mitigation is hardly voluntary a fact that must be clearly stated in this plan and in public discussion. ❖ The voluntary land acquisition "VLAP" depicts affected properties on a publicly circulated document with no certainty of schedule and funding that will be required to complete the mitigation. The mitigation must include specific funding and reasonable schedule to implement the required mitigation. ❖ B4 build option is inconsistent with the "The Consolidated Plan for the City of Warwick 2005-2009" as the impact is in direct conflict with its "Affordable and Fair Housing" plan that cites "Housing affordability is a critical issue for Warwick". ❖ The DEIS relies heavily upon the "voluntary program" for an extensive relocation of residents without providing viable answers to the question of availability of sufficient replacement housing. ❖ Neighborhood contiguity was ***not*** taken into consideration in determining which parcels would be eligible for the voluntary acquisition. ❖ In spite of many City requests the DEIS does not consider extending the voluntary takings program to leave logical neighborhood blocks. The DEIS does little to address land use compatibility of "fringe" properties bordering on the new VLAP, RPZ and roadway relocations that are part of the build options. ❖ The City's request to buffer and protect neighborhoods from fracture and isolation for future incompatibility was completely disregarded in this study. The study's proposed build actions will result in a disjointed checkerboard land use pattern that burdens the fiscal capabilities of the City and destroys the social fabric of once cohesive neighborhoods. ➢ Expand acquisition areas to promote neighborhood continuity and create logical breaks in neighborhoods. ➢ Fully fund and create a specific schedule for the voluntary acquisition program tied to specific construction projects. ➢ Eliminate any restrictions on those who choose to participate after initially declining. ➢ Create an educational program for effected residents to make them aware of the negative environmental conditions, which will result form the expansion. (Noise, air quality, etc.) This will assist in making those who choose to stay aware of what they will experience because of the expansion. ➢ Fund an independent planning consultant to develop an adaptive reuse plan (rezoning) in consultation with the City of Warwick consistent with the city's desires [and comprehensive plan] for surplus airport property. Could potentially result in restoring property to tax rolls. ➢ Turn over VHB data layers and GIS mapping and data including all mapping and GIS layers for land use, transportation, wetlands, waterways etc. for the City's Comprehensive Plan.

5.4 Social and Socioeconomic Impacts	❖ The City objects to the DEIS utilization of a decreasing sliding scale baseline for measuring adverse impact on the community. ❖ The City objects to the lack of mitigation and study regarding replacement of 186 single family and 6 multifamily "affordable" homes representing 91 percent of the homes taken in the likely B4 build option. ❖ Inadequately addresses the feasibility of implementing the goals of the City's affordable housing plan and requisite monetary mitigation. ➢ Fund an independent update to the City's housing plans and studies. ❖ Object to the lack of direct monetary compensation to the City of Warwick for the projected loss of 1million dollars annually in tax revenue from the takings projected for the likely B4 build option. ➢ Create a PILOT program through the Economic Development Corporation (EDC) to assist the City in recouping the $1 million dollars of annual lost tax revenues.
5.5 Environmental Justice and Children's Health and Safety Risk	❖ John Wick's School – Increased noise exposure reduced air quality and elimination of a substantial portion of the school district resulting in reduced enrollment thereby eliminating the viability of the school. (Nuisance coming to the school as a result of runway extension.) ❖ Does not appropriately address the total consequence of the B4 option on John Wickes school given study's finding that the proposal will have a significant impact on the said school. ❖ The study contains no toxic air quality monitoring for the John Wickes and St. Rose Lima schoolyards that are receiving significant adverse noise impact from the B4 build option. ➢ The study lacks toxic air monitoring which is inconsistent with the comprehensive initiative announced by the USEPA on March 31, 2009 focusing on, measuring the levels of toxics in the air around schools to help the EPA understand whether that air quality poses any health concerns. ➢ Sound proof and perform air quality monitoring at St. Rose of Lima School.

5.6 Surface Transportation	❖ The City objects to the roadway geometry proposed for the relocated Main Avenue associated with option B4 particularly how the lack of continuity presents an unusual unexpected curvature for travelers presenting public safety concerns. ❖ Insufficient and inadequate evaluation of Airport Road/Post Road Relocation ignoring all aspects of replacing/relocation of the major City water main located within the bed of Airport Road (B4). ➢ Replace water main under Airport Road. ❖ The City objects to the study lack of significant improvement in the Level of Service (LOS) for the new Post Road/Airport Road intersection. ➢ Increase the functional capacity of effected intersections in particular the proposed new intersection at the relocated Airport Road and Post Road. ❖ The City objects to the less than complete analyses of the post signalization plans of the Main Ave Groveland/Industrial Drive intersections. ❖ Inadequate assessment of impact on neighborhoods and public safety response related t the interruption of through traffic from RT 117 to Main Avenue and Industrial Drive because of the proposed roadway relocation and VLAP takings.
5.7 Air Quality	❖ This study simply does not extend far beyond study "criteria pollutants" regulated under the National Ambient Air Quality Standards (NAAQS). ❖ The DEIS does not effectively assess potential risk to human health by broadening study and assessment of hazardous air pollutants (HAP's) sampling volatile organic compounds (VOC's), carbonyls, fine particulate matter (PM2.5), black carbon (BC) within the adjacent residential neighborhoods from aircraft on taxiway/runways that are proposed to extend further into the surrounding residential districts (B4 option). ❖ This DEIS must include further sampling of "Seven compounds [that] exceed cancer benchmarks: Benzene, 1,4-butadiene, chloroform, carbon tetrachloride, tetrachloroethylene, formaldehyde, acetaldehyde" included in the ***2007 Rhode Island Department of Environmental Management TF Green Air Monitoring Study.*** ❖ This DEIS disregards the recommendation contained within the ***2007 Rhode Island Department of Environmental Management T.F. Green Airport Monitoring Study to "further monitor[ing] for ultrafine particles and PAHs, toxic particulate species that have been shown elsewhere to correlate with Black Carbon, in order to determine the health implications of the elevated BC levels".*** ➢ Maintain and expand airport air quality monitoring program to include monitoring and study of HAP's.
5.8 Historic, Architectural, Archaeological, and Cultural Resources	❖ The DEIS does not fully justify or propose adequate mitigation for the removal of Hangar No. 1 under the Alternative B4. ❖ Insufficient study of potential historic and archeological resources that may be in and around the cemeteries affected.

5.9 Section 4(f) and 6(f) Resources	❖ No resolution on replacing the Winslow Play Field complex consisting of four girls softball fields, two tee-ball fields, tot lot, concession building with a restroom along with two soccer fields as a Section 4(f) and 6(f) Resource even a this complex contained with the state of Rhode Island approved "City of Warwick Comprehensive Plan Natural Resources, Open Space & Recreation element page 45". ➢ The recreational resources are eliminated by the proposed B4 option without consideration of adverse effect on the children using them in the community and officials responsible for the management of these resources. ➢ The document is entirely absent study of feasible and prudent alternatives or methods of funding the relocation of these recreational facilities. ➢ Relocate and rebuild Winslow Recreation Complex (softball fields, soccer fields, Clubhouse, bathrooms & concession building and parking.
5.10 Wetlands and Waterways	❖ The wetland compensation analysis is deficient a rational discussion of reasonable alternatives of shifting runway 16-34 northwest to avoid or minimize to the lone wetland compensation mitigation being considered within this DEIS for likely option B4. ❖ The discussion on wetland compensation is also inadequate as it fails to evaluate whether the likely B4 build option would result in overall loss of "functional values" of the associated wetland complex after the build option is completed considering compensatory wetlands are viewed differently by the state of Rhode Island wetland Regulation. ❖ This section does not sufficiently focus cumulative consequences of the proposed impacts with that of past actions within the larger wetland system other than reference generalized historic development within community.
5.11 Water Quality	❖ The limits of this geographic study do not include the entire Buckeye Brook watershed leading to a weak foundation for this study's conclusion that Buckeye Brook will not be adversely impacted. ➢ Improve the water quality of Buckeye Brook by eliminating direct and indirect discharge from airport property into the Buckeye Brook watershed. ➢ Fund annual clean up and habitat restoration projects through the Buckeye Brook Watershed coalition and associated agencies. ❖ The DEIS should provide a more systematic evaluation of *cumulative* impacts from past and proposed airport infrastructure proposals that added deicing pollutants, runoff sediment, oils and fuel spill to an already comprised in-stream habitat and impaired water body. ➢ Address how past violations involving the release of deicing fluid into the surrounding water bodies have affected water quality and habitat for aquatic and riparian-dependant species. ➢ The DEIS must provide additional mitigation to compensate for the accumulating degradation of nearby water quality from past and proposed airport activities including funding annual clean up and restoration projects within the Buckeye brook watershed.

5.12 Fish, Wildlife, and Plants 5.13 Threatened and Endangered Species	❖ The City of Warwick has put a premium on preserving, protecting and enhancing remaining wetland ecosystems in the community in which plants, animals and fisheries may thrive but the DEIS does not evaluate the cumulative impacts on key species from destruction and fragmentation of habitat from past and proposed airport actions. ➢ The study lacks a defined index of past project impacts and how those projects along with the new build options will affect the shrinking natural ecosystem that supports fish and wildlife. ➢ Study how the cumulative loss of critical habitat from past and proposed projects have affected fish, wildlife and plants and determine the amount of critical mass wetlands that are required to remain in order to support a healthy natural environment for fish and wildlife. ❖ The analysis in this DEIS is ineffective in determining cumulative scale of impact from past and proposed actions as this study contains a study area that is not recognized by birds, aquatic species, reptile and amphibians that have a habitat boundary that far exceed this plan's study area. ➢ Expand the geographic boundary of study.
5.14 Floodplains 5.15 Coastal Resources	❖ The B4 build option eliminates a primary hurricane evacuation route contained within the State of Rhode Island Emergency Management Agency Rhode Island hurricane evacuation maps prepared in coordination with the Rhode Island Department of Transportation and local community. Alteration and elimination of this evacuation routes are all but ignored within this plan.  ❖ The filling of wetlands in the B4 option includes the most amount of wetland filling diminishing the flood control capacity adversely affecting downstream properties. ➢ Fund independent study of impact on all downstream properties from proposed fill activities

Details

5.1 Introduction
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5.1 Introduction

For the Record

The City of Warwick objects to the decision of FAA/consultant not to consider "substantial changes" and "significant new circumstances" in the economy and airline industry. The DEIS disregards the use of the 2005-2008 dataset seemingly because it contains unfavorable operational data. However according to the Council on Environmental Quality (CEQ) Regulations (40 CFR 1502.22) if,

"…the overall costs of obtaining it [incomplete information] are not exorbitant, the agency shall include the information".

The approach of this DEIS not to supplement the 2004 baseline data, assumptions and forecasting because of expediency and cost is noncompliant with the National Environmental Policy Act (NEPA) and Title 40 of the Code of Federal Regulations (CFR); CHAPTER V--COUNCIL ON ENVIRONMENTAL QUALITY Chapter 5 PART 1502 because the omission of an updated supplement precludes rational and reasonable assessment of this DEIS as it does not accurately disclose the scope and need for the environmental consequences caused by the build alternatives.

Without update, the 2004 baseline data and assumptions of service will undoubtedly support the build options as they are based on an errant operational forecast and a flawed list of key assumptions that are designed to support unnecessary significant environmental impact on the City of Warwick to fulfill a five-year-old purpose and need. In order to facilitate an understanding of the effected environment associated with the build options this study must update the "baseline". In some cases the baselines used with the study change between elements or within the same element of study, which is confusing and conceals the underlying impacts of the build options. The refusal to supplement the outdated 2004 forecast, fleet mix, load factors, assumption of nonstop service and omission of cumulative impacts artificially props up the rational behind the outdated "Purpose and Need Statement" that is underlying justification behind the build options. Clarity of purpose and confirmation of need is inconsistent in the document with its frequent shifts in describing project "need" from "non-stop west coast service" to "efficiency" depending on the author or date of study material.

5.1 Introduction
5.1.2 Analysis Years,
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For the Record

This DEIS is deficient creditable data and professional integrity through its lack of discussion and analyses of well-documented changes that have occurred within the airline industry and world economy. The outdated analysis years and 2004 baseline assumptions of service directly influence the integrity of this study. The remarkable decline in passenger traffic, higher load factors and cut in service routes especially to non stop west coast destinations from medium hub airports have altered many aspects of the airline industry causing monumental changes in how some air carrier groups will operate in the future as represented by the decision of Southwest Airlines to commence service at Boston Logan International Airport, a sweeping change in a business model that use to avoid large hub airports. However, reading this study one would not be aware of any of these fundamental changes including the precipitous drop in passenger traffic at PVD. This analysis chooses to ignore these wholesale changes in an effort to complete the DEIS project perceived by some as to have been going on long enough somehow legitimizing the plan itself and the less than diligent effort to involve the public and host community.

5.1 Introduction
5.1.2 Analysis Years,
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It will be impossible to ensure that that mitigation proposed is needed or warranted, and that the overall benefits of the build options outweigh their costs if the study does not fairly represent the air carrier's willingness to serve current and future nonstop west coast markets and those new markets cited in the 2004 baseline.

Likewise, the study's overreliance on operation of an inefficient 767 with outdated engine-set is also inconsistent with the contemporary efficiency requirements employed by the airlines that are cutting routes and increasing load factors to reduce fuel costs increasing revenue per passenger. The fundamental changes in the airline industry directly affect the fleet mix assumed in this study which is a fundamentally element in driving the length of runway which in turn increases the scope of build options environmental impact on the community.

Several of these significant issues raised by the City of Warwick are supported by the Federal Aviation Administration's (FAA) own forecast released on March 31, 2009 at the 34th Annual FAA Aviation Forecast Conference stating that,

"As the theme of this year's conference suggests, the industry continues to face great challenges to its economic health while confronting the realities of energy issues and the need for greater efficiency."

FAA website referring to the 34th Annual FAA Aviation Forecast Conference
Tuesday, March 31, 2009

Again, more support was given to our argument on Tuesday, March 31, 2009 when the Associated Press reported in an article published on the airportbusiness.com website,

"[The FAA's 2009 projections, released in a report Tuesday, match airlines' grim outlook. The major carriers have been cutting capacity in the face of a travel slowdown blamed on the recession]…[The FAA expects domestic boarding's on major U.S. airlines to fall 8.8 percent, and 2.4 percent internationally in 2009." Including smaller regional carriers, enplanements on U.S. routes are expected to drop 7.8 percent this year - a substantial decline compared with 2008's 1.5 percent year-over-year dip.]"

Associated Press article dated March 31, 2009 referencing the 34th Annual FAA Aviation Forecast Conference

If the FAA Aviation Forecast Conference recognizes the significant industry wide changes, challenges and call for greater efficiency why does this FAA study ignore the City of Warwick's repeated request to update the 2004 baseline data, assumptions and forecasting to reflect the conference findings ?

5.1 Introduction
5.1.2 Analysis Years
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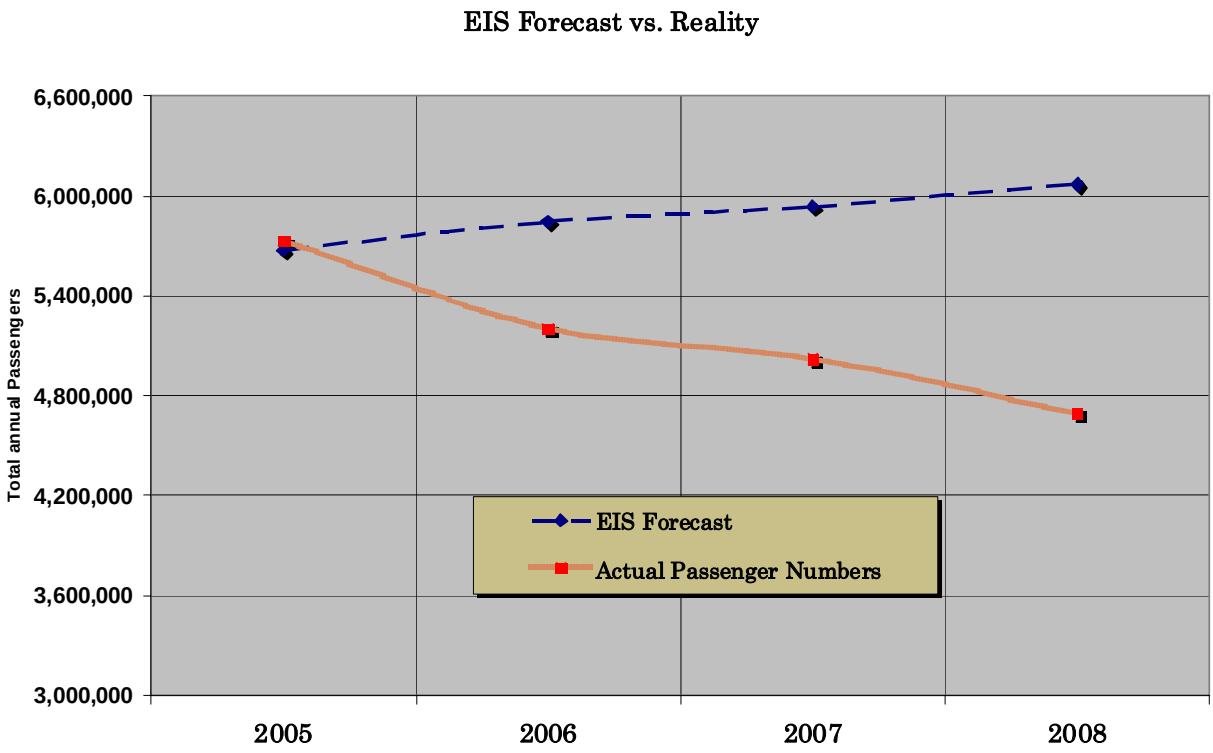
[7]

This graph of actual operational data from the Rhode Island Airport Corporation shows the dramatic schism between the forecasted growth assumed to occur using this study's 2004 baseline with the actual decline in annual passengers seen at T.F Green Airport between the years 2005 to 2008 accounting for an -11%, -15.45% and -22.68 annual decreases in passenger traffic.



The City of Warwick created its own revised forecast to 2030 in an effort to plot the projected deviation from the assumed 2004 baseline using actual operational data and the forecasted growth used in the New England Regional Systems Plan. The City of Warwick forecast was produced prior to the Annual FAA Aviation Forecast Conference held on March 31, 2009. Our analysis projected a five-year divergence between trigger points of the 2004 forecast and reality, a finding that was essentially upheld by the revised forecast released by the FAA Aviation Forecast at the 2009 conference.

In a meeting with the FAA in early 2009 prior to the forecasting conference, the City of Warwick presented our findings to the FAA and requested an update to the 2004 baseline forecast and key assumptions of service using the 2005 – 2008 dataset as reference. The FAA refused the request.

5.1.2 Analysis Years

Just month after the FAA revised their 16-year forecast acknowledging that,

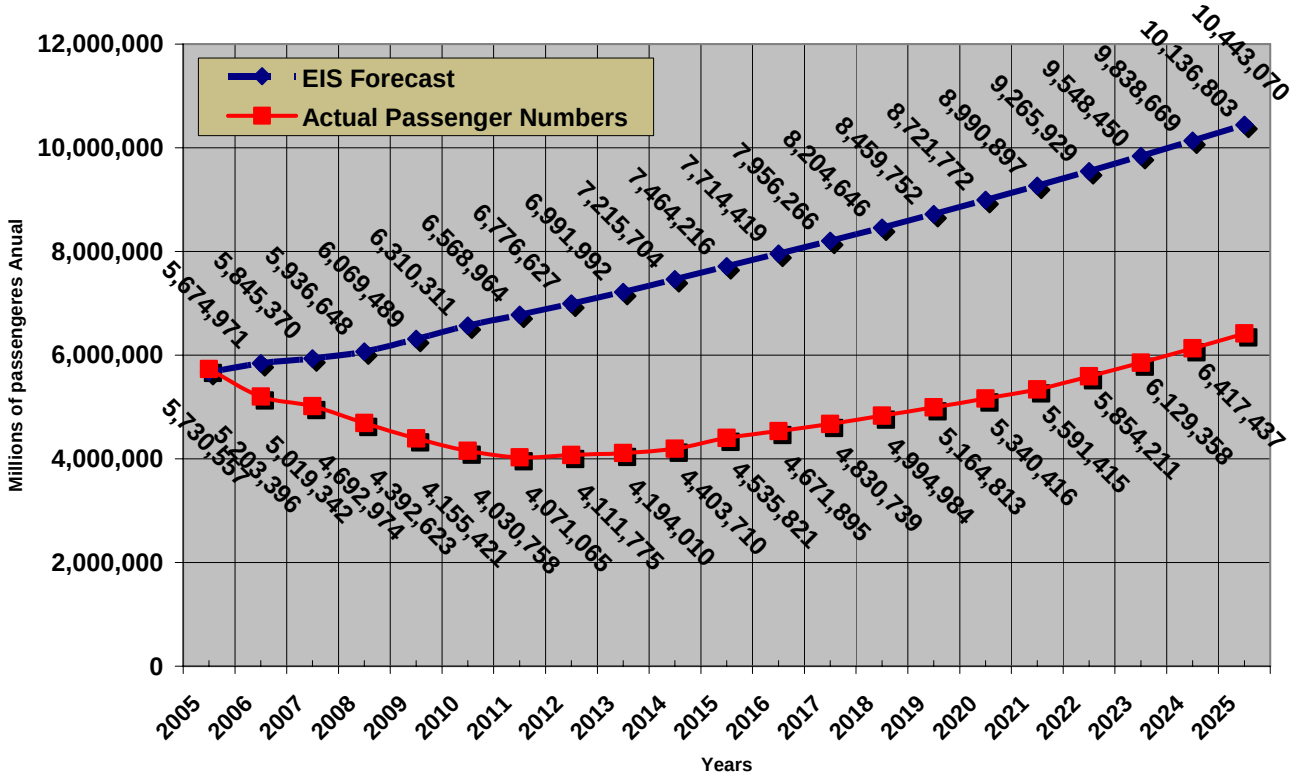
"Domestic passenger enplanements <u>will drop by nearly 8% this year</u> and then begin to grow an average 2.7% per year over the next decade and a half."

<u>FAA - 34th Annual FAA Aviation Forecast Conference held on March 31, 2009</u>

<u>The FAA also stated the 2009 forecast was drastically different from the 2008 prediction that U.S. airlines would reach a billion passengers by 2016. Using the revised 2009 forecast a billion passengers would not be reached until 2021.</u>

<u>This finding appears consistent with the City of Warwick's forecast projection completed in-house months earlier,</u>
(See below)

EIS Forecast vs. Actual Trend



5.1 Introduction
5.1.2 Analysis Years
Pg. 5-5 continued

Therefore, there can be no argument that the City's contentions were valid and that the use of the 2004 forecast as a basis for the purpose and need, master plan and DEIS is entirely inconsistent with the current FAA forecasting that recognizes plummeting travel demand and a global economic slowdown within a struggling airline sector. While this study is unwavering as to the subject of updates, the authors had no problem altering the 1993/2003 Part 150 VLAP whereby the baseline condition using its own language, ***"were updated to reflect more recent conditions".***

The significant divergence of the forecast and internal inconsistency creates meaningfully flaws within this document as does the dated "need" based projects that were once based on "passenger triggers points". The rationalization of what is and what is not important data changes depending on the day, month or year of the discussion. In no case does the outcome coincide with the requirements of NEPA, as they do not reflect the contemporary and dramatic changes that are occurring in the air transport industry a fact that precludes meaningful analysis of this study and its findings. The City of Warwick's position on this matter is corroborated by FAA's own forecasting and as such, we request revision or the preparation of supplemental document that would update all the "key assumptions" "forecasting variables" and establish year 2007 as the new baseline consistent with the National Environmental Policy Act (NEPA) (40 CFR 1502.9),

Chapter 5 PART 1502.9- Draft, final, and supplemental statements.

"a) Draft environmental impact statements shall be prepared in accordance with the scope decided upon in the scoping process. The lead agency shall work with the cooperating agencies and shall obtain comments as required in part 1503 of this chapter. The draft statement must fulfill and satisfy to the fullest extent possible the requirements established for final statements in Section 102(2)(C) of the Act.

"If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion". The agency shall make every effort to disclose and discuss at appropriate points in the draft statement all major points of view on the environmental impacts of the alternatives including the proposed action."

To ignore this critically important request would be unconscionable, creating a foundation of inaccuracy for which all following conclusions and mitigation will be based upon.

5.2
Noise

The noise analysis is incomplete and outdated lacking a complete technical and objective analysis of substantive changes in the fleet mix with only limited use of supplementary noise measurements that would refine the INM modeling that has recognized limitations as to it's effectiveness in representing perceived noise within the community.

The DEIS does not sufficiently address cumulative noise impacts of all build actions outside the project area and with an overreliance on noise modeling. The City of Warwick petitions for an update of the five-year-old dataset, operational fleet mix and the inclusion of the Community Noise Equivalent Level (CNEL) and Sound Exposure Level (SEL) metrics as components of the supplementary noise analysis. The DNL average of daily operations is accepted by the FAA but imprecise in depicting noise within the residential community during sensitive periods and at sensitive receptors.

5.2
Noise, Continued

Noise events occurring during a period of low ambient background noise are perceived differently often causing greater annoyance that is more accurately measured by the (CNEL) metric. The Sound Exposure Level (SEL) metric would assist in assessing cumulative noise exposure at a noise-sensitive location during a single event, valuable in an urban setting that often has many noise events occurring at the same time. This study does contain some supplemental data but does little to explain or outline how the data collected actually equates to adverse impact on the community. The CNEL and SEL metrics would aid in accurately assessing the apparent level of disturbance of the noise effects on the population in a more comprehensive manner than the solitary use of the DNL metric.

The City of Warwick argues that the noise study does not adequately capture the effects of cargo operations from the B4 build options after 2020 as the DEIS concludes, "***The cargo noise analysis results indicate no off airport noise impact due to cargo noise"*** even though the proposed integrated cargo facility and ancillary infrastructure improvements included within the Build options will provide an appealing facility to grow cargo capacity which often times includes late night and early morning flights using older noisier retrofitted aircraft. Absent a candid evaluation of noise from cargo operations and advanced supplementary metric analysis this DEIS cannot adequately conclude or disclose all the impacts associated with the cargo build options.

5.2
Noise
Page- Noise 1
Lines [1 and 23]

The actual flight operations do not appear to be consistent with the forecasts produced for this study. The forecast and fleet mix that drive this study's build options must be revisited as they do not accurately replicate current trends and near future changes in the market and airline industry. The aircraft noise exposure is supported by erroneous data and marketplace that never materialized creating a noise exposure that is inaccurate and unreliable for predicting impact and future noise within the community. It is premature to assess this noise exposure study until the forecast assumptions and fleet mix variable are updated.

5.2
Noise
Page- Noise 1
Lines [9 and 10]

For the Record

Include language **Adding:** *sideline noise from taxing aircraft and reverse thrust and run-up's.* This noise issue has historically effected residential properties located along the airport perimeter to a greater degree than the variable assigned to these events in the computer generated noise model.

5.2.1.1
INM Model
Page- Noise 3
Lines [19-26]

For the Record

The City of Warwick objects to the use of Table F.2-1 entitled Detailed 2004 Modeled Annual Aircraft Operations (INM Inputs Baseline Conditions Appendix F – Noise F.2-11) because it is completely outdated and not consistent with the actual 2005-2008 dataset.

5.2.1.1
INM Model

An update of the baseline data is straightforward, available and easily updatable. Revise the table below. (Excerpt of the entire table)

The INM inputs is associated with the baseline conditions analysis are d detailed below.
Table F.2-1 Detailed 2004 Modeled Annual Aircraft Operations

Arrival			Departure		
DAY	NIGHT	TOTAL		NIGHT	Grand Total
6	12	18		2	31
62	218	280		8	566
14	6	20		6	38
4,333	621	4,954		403	9,902
1,528	265	1,793		168	3,591
949	177	1,126		326	2,252
376	87	463		7	926
5,001	1,479	6,480		180	12,961
36	5	41		5	82
59	8	66		2	129
51	1	53		2	109
2,615	589	3,204		525	6,408
1,366	793	2,159		345	4,312
325	51	376		8	758
472	142	614		64	1,233
74	12	86		13	168
4	0	4		4	8
63	20	83		0	166
1,125	409	1,534		325	3,068
2,156	477	2,633		631	5,266
	5,373	25,987	22,964	25,988	

5.2.1.1
INM Model
Page- Noise 3
Lines [19-26]

The City of Warwick objects to the use of the baseline operations, fleet mix and runway utilization used in, ***"Appendix F.2 INM Inputs Baseline Conditions"*.**

In 2004, the modeled fleet mix and projected passenger growth at T.F. Green relied heavy on new service destinations and an anticipated growth in non-stop coast-to-coast service to escalate passenger growth. The passenger projections herein are based on service to new O and D routes that were to be served nonstop by larger aircraft with lower load factors driving the "need" for a longer runway. The 2004 assumptive base never materialized but the forecasting included in this DEIS for operations, service destinations, growth and fleet mix projections remain. Reduction in the overall seats made available by the air carriers, efficiency mandates by the air carriers will continue to force higher load factors higher, as well as require the use of more efficient aircraft serving only the most profitable routes. The efficiency improvements to the air carriers' business model will remain as a compulsory fiscal enhancement that will carry into the future and as such must be reflected in this study. Conversely this DEIS continues to use failed assumptions of passenger growth and fleet mix driven by the use of old inefficient aircraft flying direct non-stop service to the west coast, which wasn't present in 2004 and is clearly not present today. The refinements requested by the City are necessary to produce highly reliable noise contours.

5.2.1.1
Aircraft Noise Exposure
Radar Data
Page- Noise 3
Lines [27-34]

For the Record

The City of Warwick objects to the lack of radar data detailing the deviations to the approved part 150-noise departure paths for the years 2005-2008 as well as the lack of evaluation of these abatement procedures with the DEIS's analysis of the build options.

The City is of the opinion that accurately depicting the percentage of noncompliance from the approved NDP and extending that deviation to a time specific noise contour would disclose the impact from unplanned noise events on heavily populated residential areas adjacent to approved flight departure paths contained within the NCP Part 150 program.

Including the non-compliant flight track data for all years to 2008 would disclose to a greater degree the cumulative impact of noise exposure from two separate airport actions for the no build and expected deviations that the build options will have on residential properties beyond that measured within the DNL modeling.

5.2.1.1
INM Model
Page Noise- 3
Lines [20-23]

For the Record

The City of Warwick objects to this project's use of versions 6.1 of the Integrated Noise Model (INM), which since 2004 is considered outdated by the Federal Aviation Administration's own narrative that states:

"..the INM 7.0a is the most recent release of INM. It is a minor update of INM7.0, which is a significant improvement over the 6x series. INM 7.0a includes updates to noise/performance data for commercial aircraft, updates to substitution aircraft data, and corrections to minor software issues."

FAA.gov - Integrated Noise Model (INM)

Previous Versions of INM
7.0 (April 30, 2007)
6.2a (November 30, 2006)
6.2 (May 22, 2006)
6.1 (March 4, 2003)
6.0c (September 21, 2001)
6.0b (January 16, 2001)
6.0a (May 19, 2000)
6.0 (September 30, 1999)

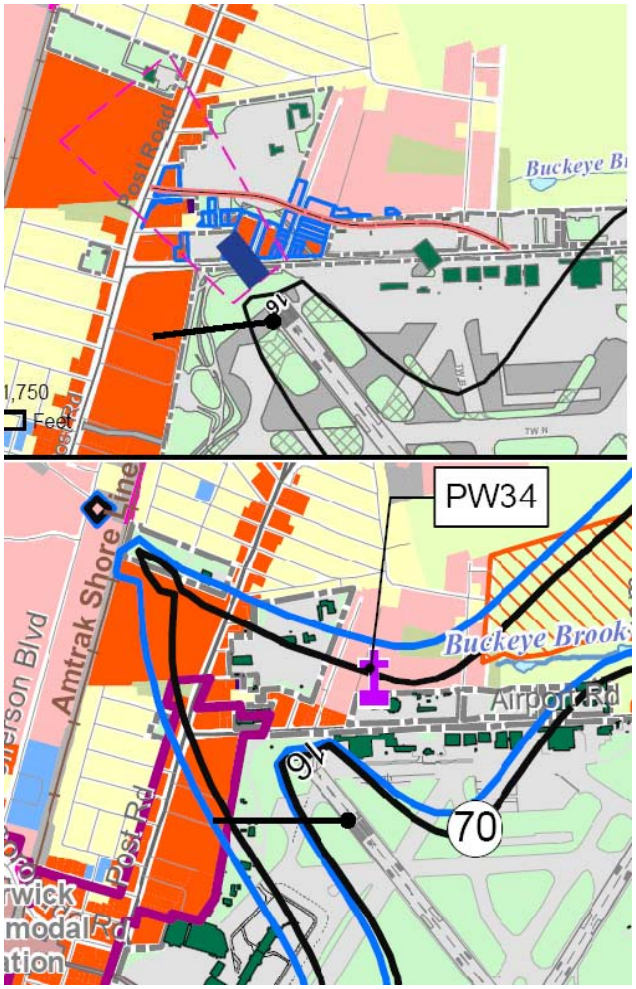
Presented with the fact that the modeling software used within this DEIS has experience significant revisions since 2003, the City of Warwick requests updating this study's use of the Integrated Noise Model (INM) version 6.1 with the INM Version 7.0a. This update should also include amending the ***Appendix F.2 entitled – "INM Inputs"*** to include the 2005 -2008 operational dataset.

5.2.1 - 41
Aircraft Noise Exposure I
Page Noise 5-55

The DEIS lacks specific rational for determining insignificant impact as the DEIS employs a sliding scale of an ever decreasing baseline for comparison of adverse impact. This study's cumulative impact analysis of noise is limited to methods and techniques that isolate the event for the proposed actions. For example the study addresses ground noise from the new integrated cargo facility as having no significant impact (B4) while ignoring impact of early morning violations to the voluntary curfew and minimizing the impact of noise associated with ground transportation, run-up's, side line noise, reverse thrust and taxing of aircraft. Should this study included a more cumulative impact analysis the true pervasiveness of noise impact would be known allowing for a more candid impact analysis and mitigation program that addresses the immediate comprehensive and long term impacts of the proposed build options.

5.2.1.1
INM inputs
Runway Use
Page- Noise 6
Lines [16,17]

The City of Warwick objects to the assumption included within the INM model that the runway utilization for Runway 16-34 would be the same in 2015.



"[14] ***Runway Use***
[15] Runway use for the No-Action Alternative and the Build Alternatives are presented in Tables 5.2-4, 5.2-5, and
[16] 5.2-6. Table 5.2-4 ***presents the projected runway use for 2015, which would be identical for the No-Action and***
[17] the 2015 Build Alternative*.*
[18] Alternative and Table 5.2-6 presents the projected runway use for the Build Alternatives. ***The runway use for***
[19] the No-Action Alternative is expected to be very similar to the baseline conditions runway use."

According to the plans submitted it appears that the addition of EMAS at both ends of 16-34 would allow the current displaced threshold to be moved back essentially creating a longer landing/takoff surface which is likely to result in greater utilization of the crosswind runway.

The addition of operational length would provide greater flexibility in considering MTOW or use during hot and humid conditions. The City of Warwick is requesting amending this section after discussion with the air traffic controllers and a complete revision to the projected runway use assumptions.

5.2.1.1
Fleet Mix
Page Noise-4
Lines [1-12]
Page Noise-4
Lines [1-12]

For the Record

The City of Warwick requests amending this paragraph in a manner that recognizes the factual changes in operational data available from the period 2005 to 2008 and the 2009 revised FAA forecasts.

"Line [1] The No-Action Alternative aircraft [3] fleet mix is based on the aircraft operations forecast that was developed in support of the Purpose and Need [4] analysis (see Chapter 2, Purpose and Need, of this DEIS). Under the No-Action Alternative,
annual commercial jet [5] operations are projected to increase from 74,374 in 2004 to 101,301 in 2015; 110,457 in 2020; and 122,241 in 2025."

Expand the narrative to correct these assumptions and discuss how the divergence affected previously forecasted fleet mix, which was developed in support of the Purpose and Need. Describe how the actual operations and changes in economic circumstance have changed the ***"2015 and 2020 modeled annual aircraft operations and fleet mix included within Table 5.2-1 Page Noise-5."*** Include contemporary and unexpected changes in airline fleet mix and load factors that have occurred since the 2004-modeled data. Of particular concern would be the reduction in seat capacity and higher load factors and reduced use of less fuel-efficient aircraft such as the 767 with older engine sets. Please indicate what changes you have made in the fleet mix characteristics to compensate for these historic changes in the industry since the original fleet mix was drafted. The City of Warwick requests addendum to this technical report that discusses these variables in detail and update the appendices with precise data regarding changes in all the inputs used in the forecasting and INM modeling.

5.2.1.1
Flight Tracks
Page Noise-8
Lines [9-19]

For the Record

The City of Warwick objects to the following assumption:

"[5] Flight Tracks [6] The analysis assumes that noise abatement flight tracks would not change as a result of any Build Alternative".

As well as the unsubstantiated conclusion that:
"[9] Evaluation of the current implementation of air traffic control procedures to achieve these noise [10] abatement tracks suggests that while some modification to specific controller instructions may be needed in[11] order to maintain the intent of the procedures, it will still be possible to satisfy the goals of the Part 150 Study."

The City of Warwick request striking the assumption:
~~[6] The analysis assumes that noise abatement flight tracks would not change as a result of any Build Alternative".~~
And conclusion:
~~it will still be possible to satisfy the goals of the Part 150 Study~~

5.2.1.1
Flight Tracks
Page Noise-8
Lines [9-19] Continued

This DEIS has indicated that the build alternatives and change in the operations will result in some land areas having a 1.5 dB or greater increase in noise exposure while the expansion of runway 5/23 for the likely B4 option will change aircraft elevation over the community resulting in new areas of exposure or increasing noise in already non-compatible land area.

According to the Code of Federal Regulations (CFR) Title 14 PART 150—AIRPORT NOISE Subpart B—Development of Noise Exposure Maps and Noise Compatibility Programs subsection 150.21(d) Noise exposure maps and related descriptions, it would be inconsistent with this federal regulation to assume and conclude the aforementioned without completion of a revised noise exposure map and completion of this DEIS.

5.2.3
Impact Assessment –ALL
Page Noise 13
Referencing Figure Document Section 5.2 Noise
Technical Report Figures
5.2-[2][3][4][5][6][9][13][14]

For the Record

The City of Warwick requests this study include complementary mapping at a more reasonable scale. The largest scale of the figures provided is 1 to 1750' which provides a adequate overview but is wholly deficient the parcel based review that is necessary in reviewing infrastructure and land use compatibility issues that are elemental to analyzing this DEIS.

The City of Warwick requests this study include either "zoom inserts" or separate figures depicting the most impacted land areas at a 400' or 600' scale. The Planning Department with its many resources has found it very difficult to discern streets, plats and geographic neighborhoods impacted by the build alternatives so it is unrealistic to suppose that the small-scale figures would be adequate for review by the general public.

This modest request is necessary for a fair and reasonable evaluation of the build alternatives consistent with Title 40 of the Code of Federal Regulations (CFR) PART 1502 ENVIRONMENTAL IMPACT STATEMENT s entitled "Writing" which states,

"Environmental impact statements shall be written in plain language and may use appropriate graphics so that decision makers and the public can readily understand them. Agencies should employ writers of clear prose or editors to write, review, or edit statements, which will be based upon the analysis and supporting data from the natural and social sciences and the environmental design arts."

Title 40 of the Code of Federal Regulations (CFR) PART 1502.8

5.2.2.4
Table 5.2-10
Summary of Noise Models, Thresholds of Significance,
Guidelines Values and Noise Criteria
Page Noise-13
Lines [28 – Table 5.2-10]

For the Record

As mentioned previously, the City of Warwick objects to the use of the outdated Integrated Noise Model (INM) version 6.1. We request updating ***Table 5.2-10 Summary of Noise Models, Thresholds of Significance, Guideline Values, and Noise Criteria*** *t*o include the latest INM Version 7.0a. *Noise Prediction Model RealContours™ FAA Integrated Noise Model (INM)* ***~~Version 6.1~~ ADD: Version 7.0a***

5.2.1.4
Total Composite Noise Exposure
Page Noise-10
Lines [3-7]

For the Record

The City of Warwick requests supplementing the summative Total Composite Noise Exposure and DNL metrics within subsection 5.2.1.4 (a) with the Community Noise Equivalent Level (CNEL) and SEL metrics. The City of Warwick understands the Federal Aviation Administration customarily uses these metrics but we judge these analytics incomplete if not used in conjunction with accepted metrics that include a more cumulative and punitive assessment that better reflects disturbance within a residential population.

5.2.2.4
Table 5.2-10
Summary of Noise Models, Thresholds of Significance,
Guidelines Values and Noise Criteria
Page Noise-13
Lines [28 – Table 5.2-10]

For the Record

The City of Warwick requests more specificity as to what hours compose a ***"nighttime event"***.

"Aircraft ground noise due to relocated Integrated Cargo Facility"
Spreadsheet-based noise model
Aircraft type; type of operation (APU, GPU, taxi-in, start-up/taxi-out); duration of event; number of daytime and Nighttime events; distance from source to receiver"

5.2.3
Impact Assessment
No-Action Alternative: 2020 and 2025 Summary of Traffic Noise for Areas Potentially
Impacted by Alternative B4
Page Noise-21
Line [1-17]

For the Record

The City of Warwick requests mapping to accompany the bias technical narration that is not easily understood by the public and is at times confusing with its less than specific geographic references such as "***in the vicinity"*** and ***"second- and third-row homes"*** statements contained below.

" [3]Four housing units in 2004 and five housing units in 2015 in the vicinity of Airport Road and [4[53 housing units in both years in the vicinity of Main Avenue would be exposed to traffic noise levels that [5] approach or exceed the FHWA criteria for traffic noise impact. These housing units are affected either by [6] traffic on Post Road and the west end of existing Airport Road in the vicinity of the proposed Relocated [7] Airport Road or by traffic on Main Avenue and Post Road in the vicinity of the proposed Partially Relocated [8] Main Avenue."

"[9] In 2020, traffic noise levels with the No-Action Alternative for areas to be potentially impacted by
[10] Alternative B4 would range from 50 to 70 dBA Leq(h) along Post Road, from the western end of the [11] Relocated Airport Road south to Elkland Road, and from 36 to 74 dBA Leq(h) along Main Avenue from [12] Post Road to Inman Avenue. First-row residences along sections of Post Road and Main Avenue would be [13] exposed to the highest noise levels, while second- and third-row homes would be exposed to lower levels of [14] traffic noise. Throughout the neighborhoods potentially affected by the Build Alternatives in 2020, 15 approximately 58 housing units would be exposed to traffic noise levels that approach or exceed the FHWA [16] NAC for residential land use during the loudest hour of the day – the same number of housing units as for [17] the 2015 No-Action Alternative."

5.2.3
Impact Assessment
No-Action Alternative: 2020 and 2025 Summary of Traffic Noise for Areas Potentially Impacted by Alternative B4
Page Noise-21
Line [1-17]

It is unreasonable to believe the general public and or affected parties will decipher how this description will result in impact to their home and noise environment. Adding some basic mapping would allow straightforward reference that will promote disclosure and discussion regarding the land use and noise impacts described in the paragraphs above.

5.2.3
Impact Assessment
No Action
Page Noise-14
Line [2]

The City of Warwick requests expanding the language regarding the assumption within the DEIS that ***"100 percent of eligible housing units would participate in the VLAP"*** to include a brief reference to historical rates of participation in that program. Alternatively, use same footnote as on page noise -15 [14]. Also, add clear language describing that the so call voluntary acquisition program is required mitigation under LU-4 of the approved Part 150 Record of Approval for T.F. Green Airport, Providence, Rhode Island approved on 6/15/00 in conjunction with the 1986 NCP.

5.2.3.1
No Action Alternative
Page Noise-16
Line [4]

The City of Warwick objects to the use of the larger less specific household per persons (2.35) based on the entire City cohort. Using best available information from the Census 2000 Summary File 1 (SF 1) census tracts that encompass the airport environ indicate that the actual AVERAGE HOUSEHOLD SIZE is actually **(2.53) a data point that results in a population value that is larger by 61 persons and 24 households.** This factual amendment is a significantly significant deviation that must be addressed within this DEIS.

5.2.3
Impact Assessment
No-Action Alternative: Composite Noise Exposure
Page Noise-22
Line [5-7] [13, 14]

As mention previously, the City of Warwick objects to using only the Total Composite Noise Exposure as it does not accurately reflect perceived noise within the community during the sensitive period of 8 pm to 10 pm. The Total Composite Noise Exposure measurement does not weigh these noise events with a penalty as compared to the *Community Noise Equivalent Level (CNEL)* methodology.

[12]ADD: As shown in Figure X.x *"… composite [13] noise levels at eight locations exceed the FAA-defined residential land use compatibility level of 65 dB. This [14] number increases to 10 locations in 2020 and 13 locations in 2025 with the No-Action Alternative."*

5.2.3.4
Alternative B4
Alternative B4 – 2015
Page Noise-53
Line [9] [10]

For the Record

The City of Warwick objects to the assumption that the changing of the threshold would not increase operations:

"[7] Improvements to Runway 16-34 would consist of shifting the runway approximately 100 feet
[8] north along its axis, which would allow EMAS to be installed at both runway ends. The safety
[9] improvements would change the way the runways or taxiways operate due to changes in the thresholds of [10] Runway 16-34, but would not result in a change in the number of aircraft operations. Hangar No. 1 would [11] be demolished and Taxiway C would be shifted 100 feet to the west."

Extending the operational length of the runway by lengthening the displaced threshold will permit greater flexibility in the use of this runway especially during takeoff of on hot humid days.

It may eliminate some instances where pilots do not use 16/34 when it is the advertised runway because of the existing-displaced threshold. This section must be amended, revisit the operational data from years past and communicate with air traffic controllers to determine reasonable runway utilization for 16/34.

5.2.3.4
Alternative B4
2015 Traffic Noise (Off-Airport Roadway Improvements)
Page Noise-54 and 55
Line [1-19]

For the Record

The City of Warwick requests this section be expanded to address the significant increase in the baseline noise condition particularly for the roadway that is identified as the"*East side of Post Road"*. We request supplementing this lean narrative and overly vague geographic reference. Explain in detail these increases and include reference to an accompanying 400' scale parcel based map depicting the boundaries of the projected noise increases with the relocated build proposed for Airport Road.

8 **Table 5.2-40 Alternative B4: 2015 Summary of Traffic Noise Impacts by Neighborhood**

		Loudest-hour L_{eq} in dBA				Total Number of Housing Units[1] Exposed to Noise Impact		
Roadway	Neighborhood	Baseline 2004	No-Action 2015	Alt. B4 2015	Change Relative to Baseline (dB)	Baseline 2004[2]	No-Action 2015	Alt. B4 2015
South side of Main Ave	Greenwood: Post to Gertrude	48 to 73	48 to 73	48 to 73	<1	16	16	16
North side of Main Ave	Greenwood: Post to Gertrude	38 to 73	38 to 74	38 to 74	0 to 1	13	13	13
North side of Main Ave	Greenwood: Industrial to Inman	40 to 69	40 to 70	40 to 70	0 to 1	9	9	9
South side of Main Ave	Greenwood: Gladys Ct to Buttonwoods	49 to 71	49 to 71	49 to 71	0 to 1	15	15	15
South side of Main Ave	Greenwood: Graymore to Walnut Glen	36 to 52	36 to 52	36 to 52	<1	0	0	0
West side of Post Road	Hillsgrove: Elkland to Pell	49 to 70	50 to 70	50 to 70	-3 to 2	4	5	5
East side of Post Road	Lincoln Park: Tennessee Ave.	50 to 56	51 to 56	51 to 59	1 to 3	0	0	0
Total		-	-	-	-	57	58	58

5.2.3.4
Alternative B4
2015 Traffic Noise (Off-Airport Roadway Improvements)
Table 5.2-40 Alternative B4: 2015 Summary of Traffic Noise Impacts by Neighborhood
Page Noise- 55
Line [8]

For the Record

The City of Warwick objects to the solitary use of the loudest hour of Day analysis to measure impact on residential properties,

"8 Table 5.2-40 Alternative B4: 2015 Summary of Traffic Noise Impacts by Neighborhood Loudest-hour Leq in dBA"

The proposed action of Alternative B4 would relocate Airport Road bisecting a densely developed residential neighborhood creating a nuisance-filled incompatibility not currently present within this long-standing densely populated residential district. Transforming this residential block of homes into a major thoroughfare will forever change the character of this neighborhood and significantly increase the baseline noise condition.

The City of Warwick request supplementing the loudest hour measurement included within this DEIS. Noise measurement must included weighed penalties for noise sensitive times of the day 8-11 pm, overnight and between 6 am to 8 am as well as a comparison of background noise level existing and proposed during these nighttime hours for the B4 build.

5.2.8.4
Population Impact Assessment
Table 5.2-42 Table 5.2-43
Page Noise- 59
Lines [18-30]

For the Record

The City of Warwick requests additional citations indicating the origin and census data used in the analysis and contained within *Table 5.2-42* and *Table 5.2-43*. This section must identify the census projections for population and housing presumed and reference sources by footnote. Include specific reference to "universe", "dataset' and "geographic subset" used to formulate the data included in 5.2.8.4 "Population Impact Assessment".

The City of Warwick demands the use of more specific census tract and block data that is clearly available without cost. The tract data indicates a larger household size than that used within this DEIS. The tract data has a direct nexus with accurate impact analysis and the cumulative assessment for both the no build and build alternatives.

5.2-44
Population Impact Assessment
Page Noise- 62
Lines [22-26]

The DEIS noise analysis failed to adequately account for the noise generated increased cargo operations from the B4 build options after 2020 as the study concludes that,

"The cargo noise analysis results indicate no off airport noise impact due to cargo noise"

Page Noise -62

In fact, the proposed integrated cargo facility and ancillary infrastructure improvements included within the Build options will provide attractive capacity that may stimulate additional cargo traffic, noise and pollution that is unsatisfactorily accounted for in this study.

5.2.4
Supplemental Noise Metrics
Page Noise- 67
Lines [20-37]
5.2.8.4
Summary of Supplemental Metrics
Page Noise- 81
Lines [11-21]

For the Record

The City of Warwick objects to the limiting the supplemental noise metrics to: Time Above (TA), Number of Events Above (N) and (Lmax). We support the inclusion of these supplementary metrics but the City believes the supplementary analysis does not go far enough to correlate the data and metrics with actual impact and consequence on the community. The document shows no tangible relationship between the supplementary findings and the DNL exposure. The City of Warwick insists this section of the DEIS be expanded evaluate the implications of the data to the public as well as a comparisons based analysis between the findings of the supplementary events and DNL analysis. As stated earlier the City of Warwick requests the supplemental noise metrics include the CNEL and SEL metrics.

5.2.6
Mitigation
5.2.6.1 Aircraft Noise Mitigation
Page Noise- 71
Lines [11-22]

For the Record

The City of Warwick considers the general discussion centered on the voluntary acquisition program inside and outside this document to be inconsistent and misleading, as it does not fully address the relationship between a VLAP land use compatibility program and required mitigation accepted under the NEPA statute. Particularly the term "voluntary" land acquisition is often used in a way that minimizes the perceived impact of the proposed actions. The emphasis on "voluntary" is misleading. As the DEIS assumes one hundred percent participation with actual participation rates as high as ninety percent this recommended mitigation is hardly voluntary a fact that must be clearly stated in this plan.

5.2.6
Mitigation
5.2.6.1 Aircraft Noise Mitigation
Page Noise- 71
Lines [11-22]

Furthermore the "voluntary" land acquisition proposed within the DEIS is not accompanied with a scheduled funding source leaving homeowners of affected properties depicted on a publicly circulated document without any assurance of when or if their homes would be purchased, a undesirable situation that residents have faced since the 1980's.

The misleading notion that "voluntary" mitigation has an insignificant connection with the build alternatives is deceitful as is the footnote placement of the ***"90 percent participation rates"*** presenting a less than clear and concise statement required by NEPA for Environmental Impact Statements ("EIS").

As required by NEPA the City of Warwick recommends simple and concise supplementary language be added to *section 5.2.6.1*. The paragraph shall state that the past "voluntary land acquisition programs" have had a 90 percent participation rate and the "voluntary land acquisition" recommended within this DEIS is fundamentally linked with the proposed actions affect on the human environment. Further, it shall state that the"voluntary land acquisition" is actually a mandatory mitigation measure that must comply with NEPA and be adequately funded and implemented within a reasonable timeframe.

5.2.6.2
Traffic Noise Mitigation
Page Noise- 73
Lines [15, 16, 18]

For the Record

The City of Warwick does not trust that installing noise barriers within the RPZ for the B4 build option along Main Avenue complies with the airport design standards advisory circular,

"RPZs are required for each runway end.
(a) The Central Portion of the RPZ. The central portion of the RPZ extends from the beginning to the end of the RPZ, centered on the runway centerline. Its width is equal to the width of the runway OFA (see Figure 2-3). Paragraph 307 contains the dimensional standards for the OFA.

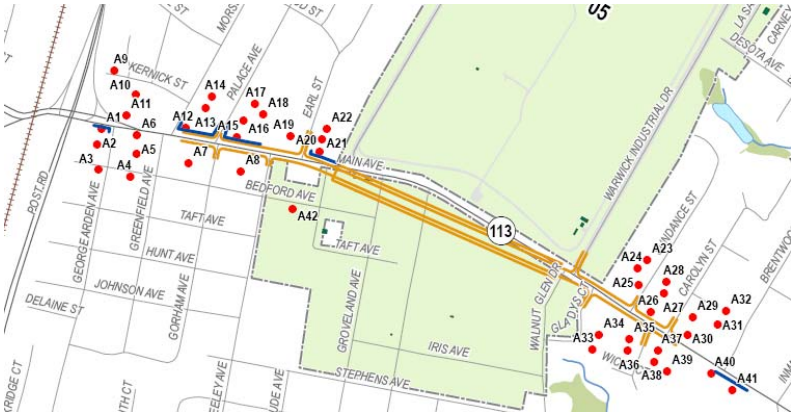
(a) While it is desirable to clear all objects from the RPZ, some uses are permitted, provided they not attract wildlife (see paragraph 202.g., Wildlife Hazards, and Appendix 17 for dimensional standards), are outside the Runway OFA, and do not interfere with navigational aids. Automobile parking facilities, although discouraged, may be permitted, provided the parking facilities and any associated appurtenances, in addition to meeting all of preceding conditions, <u>are located outside of the central portion of the RPZ."</u>

<u>Airport Design Standards Advisory Circular</u>

5.2.6.2
Traffic Noise Mitigation
Page Noise- 73
Lines [15, 16, 18]

This study's findings do not seem to coincide with **Appendix F – Noise F.4-34. Entitled "Potential Noise Barriers"** (Right) which evaluates noise mitigation in context with the Main Avenue tunnel option opposed to the newest alternative B4 option.

"14 Alternative B4
15 Preliminary results indicate noise barriers appear to be feasible at eight locations along Partially Relocated <u>16 Main Avenue</u> under Alternative B4."



The City requests review of the project plans and specifications referenced below specifically with reference to the B4 option,

"17 RIDOT's Cost Effectiveness Index (CEI) of $2,500/dBA(IL)/unit or $25,000/unit. As described above, all noise [18] barriers identified as reasonable and feasible <u>are to be included in the project plans and specifications.</u> The costs [19] of such noise abatement measures may be included in the total cost of the federal-aid participating project."

The City of Warwick objects to the scarce outline offered within this DEIS for this form of mitigation. The City of Warwick is concerned over the aesthetics and effectiveness of this measure. Considering that many barrier designs that are acoustically effective but visually unappealing, this mitigation would not be compatible with the community's visual expectations a fact that is not fully explored in this draft. Because design considerations such as material, scale and proportion are very important this study cannot just reference a technique to be address at a different time. The fact that a more attractive earthen berm/vegetative barrier technique exists does not mean that the measure would achieve the desired attenuation and thus cannot be forwarded as mitigation for the Build options. The study must significantly improve upon study of design and effectiveness of the specific methods proposed included alternatives to unattractive wood or concrete barrier commonly seen along the interstate Highway.

5.3 Compatible Land Use
Land Use-1

For the Record

The DEIS does not adequately address how the growing incompatible land uses created by airport expansion will be reconciled through the local zoning and planning process when the actions taken by the airport operated directly conflict with the local comprehensive plan and zoning ordinance. The City requests the DEIS add specific language such as, ***"the B4 build option will change the short and long-term land use pattern of the City of Warwick introducing a non-compatible use within the center of a single family district, which is inconsistent with the City of Warwick Comprehensive Plan and Zoning Ordinance."*** This section of the DEIS inadequately addresses secondary land use impacts and relies heavily on mitigation based on a VLAP part 150 plan that is solely dependent on unstructured application for federal funding.

5.3.4 Compatibility with Plans
Land Use-23

** Note: The Planning Department is in the process of updating its housing statistics and analysis and will submit the updated findings during the public comment period.*

For the Record

The Planning Department finds the VLAP for the Build options to be inconsistent with the State of Rhode Island approved Comprehensive Plan for the City of Warwick. The build alternatives contained within the DEIS increase long-term adverse impact on low low-mod income housing needs of the City of Warwick, degrades neighborhoods, roadway circulation, removes recreational opportunities and imposes noise on a larger percentage of the population than the no action alternative.

The build option for alternative B4 is inconsistent with the ***"The Consolidated Plan for the City of Warwick 2005-2009"*** as the impact is in direct conflict with its *"Affordable and Fair Housing"* plan that cites ***"Housing affordability is a critical issue for Warwick"*** and that there are ***"obstacles"*** *t*o meeting underserved needs including the:

5.3.4 Compatibility with Plans (continued)

"a. Cost of housing. Market forces have increased the cost of all residential sites and units. For instance, the average purchase price for a single family home in Warwick (including condominiums), went from $125,000 in 1999 to $220,000 in 2004, an increase of 76%" **and in direct conflict with:**

"d. Expansion of T. F. Green Airport. Including commercial rezonings for attendant land uses and direct airport expansion, the Warwick Planning staff estimates that the City will lose 1,885 residential units over the time period between the years 1983 to 2010. The majority of those units are entry-level units for homebuyers in Warwick. The effect of this expansion is two-fold, the lost units lost decrease the opportunity for entry level homeownership or lower market level single family rental in Warwick. Also, these home purchases by the airport put pressure on the prices of remaining housing in the city."

The Consolidated Plan for the City of Warwick 2005-2009

5.3.7 Mitigation
Land Use-24-40

NEPA does not necessarily consider the proposed VLAP land use compatibility program, as a substantive mitigating measure because one cannot predict with certainty the schedule and funding that will be required to complete the mitigation. Because this DEIS relies heavily upon the "voluntary program" for an extensive relocation of residents without the availability of sufficient replacement housing this study must contain a more genuine housing mitigation analysis and dedicated funding commitment for the proposed VLAP.

The DEIS assumes 100 participation in the voluntary acquisition program as the mitigation offered for the build alternatives. The DEIS does not dedicate funding or a reasonable schedule to implement the required mitigation leaving effected homeowners identified within the DEIS to carry on with a property that is depicted on a map as an area in need of a "taking" because of an adverse environmental condition. This places an unfair burden on the effected property owners for an unknown period, as the proposed mitigation for the voluntary acquisition program is entirely dependent on federal funding that takes almost a decade to complete.

The DEIS does not appropriately address how a deficiency in federal funding would affect the implementation of the mitigation proposed which is essentially a part 150 program. This study also does not acknowledge the record of funding past "voluntary" programs and how that would impact the implementation of the mitigation proposed. This study must clearly state that funding of the past 2003 Part 150 VLAP is NOT considered mitigation for the proposed build options being considered in this DEIS. Discussion regarding mitigation for the build options should not weave in funding from past mitigation Part 150 programs as an implied suggestion that the airport operator is providing additional mitigation beyond that which is already required under a past program.

This DEIS must include verbiage that states, ***"A VLAP as a NEPA mitigation measure will require the airport operator fully fund the program and be responsible for ensuring that the funding commitment is carried out in a reasonable time frame."*** Should a build alternative be selected the City of Warwick insists that the 2015 budget include a more specific timeline and dedicated funding source to advance the VLAP associated with the selected build option in a more fair and equitable manner than that witnessed in past programs. This allocation of funds for the VLAP associated with the 2015 build actions shall be separate from the funding requests that are being considered by the FAA for the 2003 Part 150 VLAP. The City requests should the B4 become the preferred alternative the budget for the 2015 build actions include 90 percent funding for the entire cost of purchasing all eligible homes.

5.3.2.1 Assumptions
Compatible Land Use-6
Lines [26, 27, 28]

For the Record

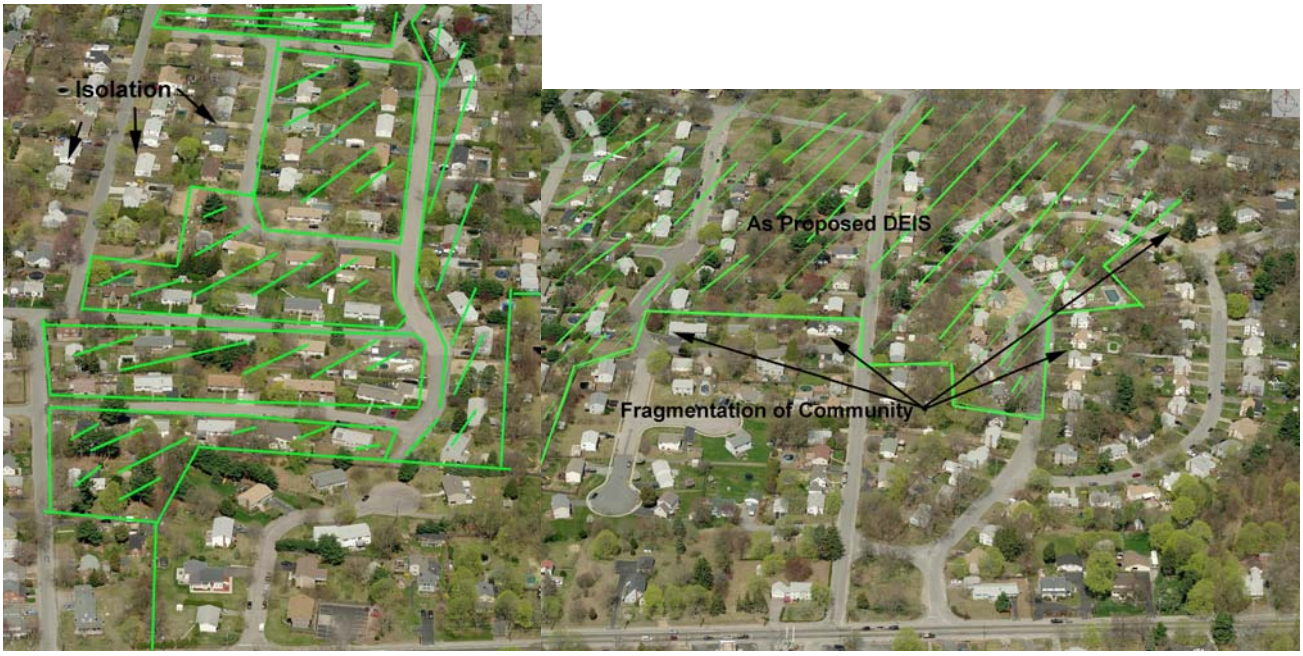
The City of Warwick requests amending or striking ***~~"Neighborhood contiguity was also taken into consideration in determining which parcels would be eligible for voluntary acquisition"~~*** because the DEIS contains no such rational planning. For years, the City of Warwick has requested such a logical boundary and buffer consideration be included if a new VLAP was established. However the DEIS as submitted contains no such continuity.

5.3.2.1 Assumptions
Compatible Land Use-6
Lines [26, 27, 28]

For the Record

This false statement must be amended. In many cases the "voluntary takings" leaves single-family homes overlooking a soon to be airport fence and runway approach.

"26 Acquisitions under the 2020 No-Action VLAP and the 2020 Future Build VLAP would be voluntary when a
27 residential parcels is fully or partially within the DNL 70 dB noise contours. ***Neighborhood contiguity was***
28 also taken into consideration in determining which parcels would be eligible for voluntary acquisition."



5.3.2.1 Assumptions
Compatible Land Use-6
Lines [26, 27, 28] Continued

In spite of many City requests the DEIS does not consider extending the voluntary takings program to leave logical neighborhood blocks. The DEIS does little to address land use compatibility of "fringe" properties bordering on the new VLAP, RPZ and roadway relocations that are part of the build options. The City's request to buffer and protect neighborhoods from fracture and isolation or future incompatibility was completely disregarded in this study. The study's proposed build actions will result in a checkerboard land use pattern that burdens the fiscal capabilities of the City and destroys the social fabric of the once cohesive neighborhood.

The properties that remain may have to overlook an airport clear zone and chain link fence no doubt effecting the value of the property appalling realities that are unnoticed in this study. Under the voluntary acquisition proposed under the build option B4 the City would have to continue maintain roadways and service areas that may only contain a few homes and generate up to 90 percent less tax revenue within a disjointed neighborhood. Additionally the build actions consequence on public safety is absent from study even though the B4 alternative would eliminate many residential through streets connecting Main Avenue with Route 117.

5.3.3 Impact Assessment
Land Use-7

Under the B4 alternative, the VLAP seeks purchase of 186 single family and 6 multifamily "affordable" homes representing 91 percent of the homes taken in the likely B4 build option. The DEIS fails miserably in addressing the short, long and cumulative impact on the City's housing plan and the ability for the City to meet future affordable housing needs especially since detached single family housing stock within this price range can not be sufficiently replaced as the City reaches buildout. This study does not fully evaluate reasonable alternatives to these takings or implication to cost of housing and rent or depreciation that will occur for properties located just outside the "takings" area.

The growing incompatibly proposed by the build options is inconsistent with the goals and policies of the City Comprehensive and Housing plans, consume neighborhoods, businesses and valuable land reducing he tax base to the City while permanently fracturing neighborhoods and polluting the environment yet this plan refuses to analyze the cumulative effect of these actions over time.

5.4 Social and Socioeconomic Impacts

The study concludes that the likely preferred alternative B4 will result is a considerable loss of affordable housing *(91%)*, tax revenue *(1million dollars annually),* cumulative property tax losses *(5.3 million dollars by 2025)* and proposes irreplaceable manufacturing and warehouse jobs while disrupting and dividing established residential districts within the City of Warwick. However, this study fails to suitably address replacing or mitigating the loss of the affordable detached housing stock or tax revenue. The study establishes no cumulative means to applying a significance threshold to determine significant impact and consequently has no means of assessing if the build options would result in a disproportionately high and adverse affects on low-income and minority populations or the fiscal stability of the City.

5.4.3.4 Social and Socioeconomic Impacts
Socioeconomic Pages 37- 45

The reduction of affordable single family detached housing associated with the B4 alternative will create significant obstacle to an already underserved population that cannot be replaced in its entirely within the City of Warwick. However, the DEIS fails to address impact on short and long term goals and policies of the City of Warwick Housing Plan particularly the macro impact on the minority and low-income populations who rely on this housing stock.

This study states as a fact that 91 percent of all the homes taken in the likely B4 build will be "affordable". Section 5.4 is neither comprehensive nor complete when addressing how to replace the loss of 186 detached single family and 6 multifamily "affordable" homes that represent 91 percent of the homes taken in the likely B4 build option. The impacted neighborhood within the likely B4 alternative contains affordable single-family housing stock that caters to a sizable low to low to low-moderate-income population. The plan must demonstrate how a loss of 186 affordable detached homes will be replaced and if the affordable detached homes cannot be replaced, explain how this loss will affect that State's and City's affordable housing plan included monetary and social costs of not meeting the established goals and objectives. This plans acknowledgment that the B4 build options presents an irreversible permanent action to housing and taxes but requires more substantive inquiry as to the extent and proportion of impact and methods available mitigate the housing issue and compensate the City for loss tax revenue.

The study is equally silent as to the collective impact that the growing airport actions have had on the City including important "quality of life" issues. Several development actions past and proposed disturb the social and socioeconomic composition of the community. Collectively these social and socioeconomic impacts are referred to as "quality of life" issues. The proposed build actions will add to the series of nuisances already in place from the repeated growth of the airport land use within the geographic center of the City of Warwick.

The dramatic decrease in "quality of life" is cumulative and collectively degrades those amenities that residents associate with community and "place". It is not uncommon to observe areas bordering the airport landuse as a collection of vacant lots and scattered homes bisected by airport fencing and over-flown by loud polluting aircraft. Because this draft establishes a baseline for comparison using the existing condition, comparing the build condition for the purposes of determining significant impact becomes an exercise in futility because the baseline is actually a sliding scale of an ever more deteriorating environment.

It is for this reason that the City requests a much more comprehensive analysis creating a new baseline of study for land use and socioeconomic impacts that dates back to year 2000 which would provide a more integrated macro environment of study.

5.5 Environmental Justice and Children's Health and Safety Risk

<u>For the Record</u>

The City of Warwick is of the opinion that this DEIS is inconsistent with USEPA policy and is wholly deficient monitoring of toxic pollutants in the air around schools to determine whether toxic chemicals that permeate the schoolyard air pose health risks to schoolchildren.

The DEIS does not appropriately identify the environmental health risks on children playing in the schoolyards at John Wickes schoolyards identified within the likely B4 build option as being subject to a significant increase in noise from jet engines on aircraft taxing and taking-off closer to the school in the B4 alternative.

5.5 Environmental Justice and Children's Health and Safety Risk (continued)

In a comprehensive initiative announced by the USEPA on March 31, 2009, the agency stated it would work with state and local officials to focus on,

"[measuring the levels of toxics in the air around schools to help the EPA understand whether that air quality poses any health concerns. EPA will use what it learns from this monitoring initiative to determine its next steps as it works to protect children's health where they live, play and learn.]"

USEPA, SCHOOLS MONITORING INITIATIVE FACT SHEET

Air toxics have been associated with cancer, damage to the immune system, breathing disorders, developmental and neurological problems. The USEPA observes that children are especially vulnerable because their bodies are still developing and because they breathe more air in proportion to their weight than adults do according to the USEPA.

These concerns reiterated by EPA Administrator Lisa P. Jackson in the statements,

"[As a mother, I understand that concerned parents deserve this information as quickly as we can gather and analyze it,]..[EPA, state, and local officials are mobilizing to determine where elevated levels of toxics pose a threat, so that we can take swift action to protect our children at their schools.]"

EPA Administrator Lisa P. Jackson reported in an article By MATTHEW TRESAUGUE and MOISES MENDOZA Houston Chronicle March 31, 2009

The City of Warwick demands this DEIS adopt the EPA initiative to install and operate air monitors to begin toxic air sampling at public and private school yards around the airport correlating the data with runway utilization for the sampling period. Special consideration must be given to elementary and junior high schools that are in close proximity to the runway ends and are predicted to have a significant increase in noise impact that is interrelated with taxing and takeoff events that expose children in schoolyards to air toxins from thrusting engines and idling aircraft awaiting takeoff. Devoid of the school yard based toxic air quality monitoring and laboratory analysis section 5.5 Environmental Justice and Children's Health and Safety Risk of the DEIS cannot conclude that toxic air pollution associated with the proposed alternatives runway extensions would not pose a risk to children playing in the schoolyard. The B4 build alternative proposes an action to extend the runway length and taxiway into a residential area closer to St. Rose of Lima School and John Wickes Schools. As stated in the DEIS *"[In 2020, two sites (St. Rose of Lima School and John Wickes School) would be newly exposed to DNL 65 dB and above,]"* Environmental Consequences and Mitigation Compatible Page Land Use-23

Related air quality concerns regarding exposure of air toxics on children and the potential of this exposure on children's health was not adequately studied nor was toxic air quality monitoring conducted for the John Wickes and St. Rose Lima schoolyards. This shortcoming is also inconsistent with the comprehensive initiative announced by the USEPA on March 31, 2009 focusing on, measuring the levels of toxics in the air around schools to help the EPA understand whether that air quality poses any health concerns.

5.6 Surface Transportation

The DEIS inadequately evaluates the disruption of local traffic patterns substantially reducing the levels of service on the roadway network that serves the City of Warwick.

5.6 Surface Transportation (continued)

The study of the B4 build option does not completely address the elimination of thru traffic from RT 117 to Main Avenue, the signalization of that route and the elimination of Industrial Drive. In fact, the signalization at Groveland Avenue and Industrial Drive are not called out on the supplement of figures included in the report.

The City of Warwick does not support the roadway geometry proposed for the likely preferred alternative B4. The City is concerned over the proposed Main Avenue relocation, as the radius of the roadway proposed is inconsistent with driver expectancy and geometric continuity present along Route 113 in the City of Warwick. The unusual curvature proposed without physical separation with opposing traffic is cause for concern for opposite direction road departures, headlight glare, head-on collisions and sideswipes, which may be more prevalent because of the severity and unexpected curvature proposed for Main Avenue under, build option B4.

The study also lacks alternative analysis that would improve the level of service at the Airport Road/Post Road relocation for likely B4 build option. The dialogue introducing noise barriers is entirely inadequate. The "appears feasible" reference and analyze it later methodology is an entirely deficient NEPA analysis within an EIS process. A proposed barrier design is referenced only in terms of cost ignoring acoustic-performance and aesthetic design within the community. A simple reference to a transportation agencies guidance document is insufficient and does not displace the host community's concern over the effectiveness and aesthetics of this measure. (See previous comment in noise).

The DEIS is insufficient and inadequate in evaluating the cost and relocation of a 20" water main located in the bed of Airport Road a significant and critical water main for the City. RIAC has long been aware of the City concerns and cost to relocate the line as witnessed in the following correspondence regarding RIDOT'S 1r project. The proposed B4 would exacerbate these concerns with the propose relocation of Airport Road. This plan elects to ignore security, safety and costs aspects associated with the B4 build option's impact on this critical water line.

DANIEL P. O'ROURKE
DIVISION CHIEF

ROBERT J. DESAULNIERS
OFFICE MANAGER

SCOTT AVEDISIAN
MAYOR

CITY OF WARWICK
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER
935 SANDY LANE • WARWICK, RHODE ISLAND 02889
TEL. (401) 738-2000 x6600 • FAX (401) 732-0616

April 5, 2007

Mark P. Brewer
President & CEO
Rhode Island Airport Corporation
2000 Post Road
Warwick, RI 02886-1533

Re: Proposed Route (20" Water Line)

Dear Mr. Brewer,

The City of Warwick, Water Division has been discussing over the past several years the need to replace the existing water line located in Airport Road with senior officials at the Rhode Island Department of Transportation. As you are aware, the area has experienced numerous disruptions in service to both businesses and facilities owned by the Rhode Island Airport Corporation. Currently this road is considered a top priority by the State of Rhode Island and is scheduled to be resurfaced within the next year. The challenge for the City of Warwick is to coordinate the design, construction, and payment of this project which best serves the interests of our taxpayers.

Recently, staff from the Department of Public Works and the Water Division met with Ahmed Shihadeh, Manager of Engineering, at your agency to discuss a proposed alternate route which would entail crossing land owned by the Rhode Island Department of Transportation with portions leased by your agency. The proposed route would utilize a corridor housing a sewer line for the City of Warwick. It would be our intent to have the existing "permissive use" thirty foot area amended or an addendum added to allow for this water line to be constructed. Mr. Shihadeh's initial response was that it would not pose any interference issues either with the Federal Aviation Administration approach lighting or facilities under the control of your agency.

Therefore, I have enclosed a set of plans for your review and comment either by you or designated staff. I want to emphasize the importance of this exercise because this is the optimal time to upgrade water utilities to existing and future sites and to provide an emergency backup connection should the line on Post Road experience a failure.

If you should have any questions or need additional information regarding this project, please contact me at 738-2000, extension 6604.

Thank you in advance.

Sincerely,

Daniel P. O'Rourke

Daniel P. O'Rourke
Chief of Water

Cc: Mayor Scott Avedisian
David Picozzi- Director of Public Works
John DeLucia- City Engineer
Ahmed Shihadeh- RIAC, Manager of Engineering
Robert Smith- Rhode Island Department of Transportation
Mark Carruolo- Director of Planning

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Rhode Island Department of Transportation
ENGINEERING DIVISION
Two Capitol Hill, Rm. 226
Providence, RI 02903-1124
PHONE 401-222-2023
FAX 401-222-3006; TDD 401-222-4971

May 22, 2006

Daniel P. O'Rourke
Department of Public Works
935 Sandy Lane
Warwick, RI 02889

RE: 1R HIGHWAY SAFETY IMPROVEMENTS TO AIRPORT ROAD
FROM POST ROAD TO WARWICK AVENUE
WARWICK, RI
R.I. CONTRACT NO. 2000-EH-005
R.I.F.A.P. NO. STP-DESN(001)
Water Line Replacement

Dear Mr. O'Rourke:

In your recent letter of April 24, 2006, you expressed the desire for including the water line replacement with the Department's construction contract for Airport Road as opposed to installing it ahead of the Department's contract. The Department is willing to work with the City to proceed with inclusion of the waterline into our contract. However, please note that it is imperative that the Department receives your design as soon as possible so that it does not delay the design schedule for our project. We need to allow 2 to 3 months to incorporate the water line design into our plans after we receive the completed design from the City.

The Department is in the process of obtaining pavement cores to assist the City in determining the exact location of the concrete base. It is becoming apparent that the removal and restoration of the concrete base for the installation of the water line may be the most complicated element in this project. For this reason, we need the waterline design to be completed, before we can finalize our 1R project design schedule.

At this point, based on the above, we anticipate that the 1R project will be advertised this fall and construction will commence in the Spring of 2007. If the City wishes to have the water line replaced sooner than this coming winter, the City could still consider awarding a separate contract for replacing the water line. Otherwise, the waterline replacement will be done concurrently with the Department's 1R project as planned.

When the plans are 90% complete, we will submit to you for City approval a Construction & Maintenance Agreement and an Escrow Agreement for the installation of the waterline. The necessary funding will need to be placed in escrow prior to the advertisement of the 1R project, currently scheduled to be advertised in October 2006.

We are requesting that the design specifications for inclusion of the water line be completed by July 14, 2006 in order to maintain our current schedule which is to advertise for bids in October 2006. We will continue to work with you in the upcoming months. Should you have any questions, please call me at 222-2023 ext. 4020.

Sincerely,

Kazem Farhoumand, P.E.
Deputy Chief Engineer

AMM/

Cc: Parker, Farhoumand, Smith, Shawver, David Picozzi (Public Works), Hugh Neenan (United International); File

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Engineer's Estimate - By FAP

Date:11/29/2006

Project Name - 1R HIGHWAY SAFETY IMPROVEMENTS TO AIRPORT ROAD
R.I. Contract No. - 0098B
90% Design

Item	Item Code	Description	UM	Quantity	Unit Price	Total	E&C Total
(City of Warwick)							
003	201.0407	REMOVE AND DISPOSE PAVEMENT AND RIGID BASE	SY	7,224.00	$7.50	$54,180.00	$8,127.00
004	201.0409	REMOVE AND DISPOSE FLEXIBLE PAVEMENT	SY	15,184.00	$4.00	$60,736.00	$9,110.40
012	202.0100	EARTH EXCAVATION	CY	3,611.00	$10.00	$36,110.00	$5,416.50
013	204.0100	TRIMMING AND FINE GRADING	SY	22,444.00	$3.00	$67,332.00	$10,099.80
018	302.0100	GRAVEL BORROW SUBBASE COURSE	CY	4,509.00	$10.00	$45,090.00	$6,763.50
019	401.0100	BITUMINOUS BASE COURSE	TON	1,902.00	$75.00	$142,650.00	$21,397.50
020	401.0200	BITUMINOUS SURFACE COURSE TYPE I-1	TON	2,014.00	$65.00	$130,910.00	$19,636.50
022	403.0300	ASPHALT EMULSION TACK COAT	SY	15,547.00	$0.25	$3,886.75	$583.01
023	410.1000	TEMPORARY PATCHING MATERIAL/TRENCHES	TON	3,075.00	$80.00	$246,000.00	$36,900.00
025	701.9901	4" DIAMETER DUCTILE IRON WATER MAIN, CL. 52	LF	44.00	$60.00	$2,640.00	$396.00
026	701.9902	6" DIAMETER DUCTILE IRON WATER MAIN, CL. 52	LF	1,010.00	$65.00	$65,650.00	$9,847.50
027	701.9903	8" DIAMETER DUCTILE IRON WATER MAIN, CL. 52	LF	134.00	$75.00	$10,050.00	$1,507.50
028	701.9904	12" DIAMETER DUCTILE IRON WATER MAIN, CL. 52	LF	18.00	$80.00	$1,440.00	$216.00
029	701.9905	20" DIAMETER DUCTILE IRON WATER MAIN, CL. 52	LF	6,204.00	$220.00	$1,364,880.00	$204,732.00
030	701.9906	1" TYPE 'K' WATER SERVICE	LF	577.00	$40.00	$23,080.00	$3,462.00
031	701.9907	1 1/4" TYPE 'K' WATER SERVICE	LF	135.00	$50.00	$6,750.00	$1,012.50
032	701.9908	2" TYPE 'K' WATER SERVICE	LF	94.00	$55.00	$5,170.00	$775.50
033	701.9909	4" DIAMETER GATE VALVE	EACH	3.00	$1,000.00	$3,000.00	$450.00
034	701.9910	6" DIAMETER GATE VALVE	EACH	23.00	$1,200.00	$27,600.00	$4,140.00

Page 2 of 11

Engineer's Estimate - By FAP

Date:11/29/2006

Project Name - 1R HIGHWAY SAFETY IMPROVEMENTS TO AIRPORT ROAD
R.I. Contract No. - 0098B
90% Design

Item	Item Code	Description	UM	Quantity	Unit Price	Total	E&C Total
(City of Warwick)							
035	701.9911	8" DIAMETER GATE VALVE	EACH	6.00	$1,500.00	$9,000.00	$1,350.00
036	701.9912	12" DIAMETER GATE VALVE	EACH	1.00	$2,250.00	$2,250.00	$337.50
037	701.9913	20" BUTTERFLY VALVE	EACH	41.00	$3,000.00	$123,000.00	$18,450.00
038	701.9914	POST TYPE HYDRANT	EACH	15.00	$4,000.00	$60,000.00	$9,000.00
039	701.9915	CURB STOPS	EACH	27.00	$400.00	$10,800.00	$1,620.00
040	701.9916	REMOVE EXISTING GATE VALVES	EACH	20.00	$500.00	$10,000.00	$1,500.00
041	701.9917	LINE STOP FOR WATERMAIN	EACH	1.00	$50,000.00	$50,000.00	$7,500.00
077	914.5010	FLAGPERSONS	MHRS	2,184.00	$34.00	$74,256.00	$11,138.40
078	914.5020	FLAGPERSONS - OVERTIME	MHRS	1,092.00	$42.00	$45,864.00	$6,879.60
079	919.0101	TEST PITS	EACH	42.00	$400.00	$16,800.00	$2,520.00
087	931.0110	CLEANING AND SWEEPING PAVEMENT	HSY	156.00	$3.50	$546.00	$81.90
089	932.0200	FULL-DEPTH SAWCUT OF BITUMINOUS PAVEMENT	LF	43,554.00	$1.50	$65,331.00	$9,799.65
090	932.0210	FULL DEPTH SAWCUT OF BITUMINOUS PAVEMENT AND RIGID BASE	LF	3,072.00	$2.75	$8,448.00	$1,267.20
095	936.0110	MOBILIZATION	LS	0.35	$475,000.00	$166,250.00	$24,937.50
096	937.0200	MAINTENANCE AND MOVEMENT TRAFFIC PROTECTION	LS	0.35	$500,000.00	$175,000.00	$26,250.00
					Sub-Total :	$3,114,699.75	$467,204.96
					E&C Total :	$467,204.96	
					Total (City of Warwick) :	**$3,581,904.71**	

5.7 Air Quality

This study lacks proper evaluation of air quality and health risks associated with the build options, as it does not recognize the disproportionate and adverse human health or environmental effects that hazardous air pollutants have on the predominately-residential land use that surrounds this airport. This study simply does not extend far beyond study "criteria pollutants" regulated under the National Ambient Air Quality Standards (NAAQS).

The DEIS does not effectively assess potential risk to human health or broaden study of hazardous air pollutant (HAP) limiting study, sampling and assessment of volatile organic compound (VOC), carbonyls, fine particulate matter (PM2.5), black carbon (BC) within the adjacent residential neighborhoods from and related aircraft and ancillary operations associated with the build options. The draft disregards the ***2007 Rhode Island Department of Environmental Management TF Green Air Monitoring Study*** findings that "Seven compounds exceed cancer benchmarks: Benzene, 1,4-butadiene, chloroform, carbon tetrachloride, tetrachloroethylene, formaldehyde, acetaldehyde".

The *2007 Rhode Island Department of Environmental Management TF Green Airport Monitoring Study* demonstrated an airport influence based on upwind and downwind monitoring and recommended additional study in the neighborhood east of the and west of the airport including ***"further monitoring for ultrafine particles and PAHs, toxic particulate species that have been shown elsewhere to correlate with Black Carbon, in order to determine the health implications of the elevated BC levels",*** yet the DEIS omits such review and discards the recommendation as an element of study to determine and disclose impact associated with the no build and build options.

Without additional monitoring and legitimate air toxic assessment this study is in error in its claim that the build options will not significantly contribute to adverse air quality because there is no intervening analysis that counters RIDEM study and can state with impunity that the airport is not an insignificant source of air pollution, in fact the study would RIDEM study suggests otherwise.

5.8 Historic, Architectural, Archaeological, and Cultural Resources

The DEIS does not fully explore or justify reasonable alternatives to the removal of Hangar No. 1 under the Alternative B4 option and the proposed moving, filling and/or altering the headstones at Warwick Historic Cemetery 26. The same inadequate analysis was completed for Alternative B4 for the relocation of Main Avenue impacting Historic Cemeteries 77, 63, 76, 78, or 81. Insufficient study by qualified professionals in archaeology and as to the potential resources that may be in and around the historic properties and cemeteries affected.

5.9 Section 4(f) and 6(f) Resources

Insufficient Information as this section does not include the Winslow Play Field complex consisting of four girls softball fields, two tee-ball fields, tot lot, concession building with a restroom along with two soccer fields as a Section 4(f) and 6(f) Resource even a this complex contained with the State of Rhode Island approved,

"City of Warwick Comprehensive Plan Natural Resources, Open Space & Recreation element page 45",
"Planning District: 4
Neighborhood: Greenwood East,
Wildes Corner, Buttonwoods, Apponaug,
Nausauket, and Arnold's Neck
Census Tracts(s): 219.01, 219.02,
219.03, and 220

This area is served by over 320 acres of local open space and recreational facilities, one State facility (the Community College of Rhode Island), and several private recreational facilities, primarily marinas. Centrally located in the City of Warwick, this area includes also the two largest citywide facilities that are City Park (200+/- acres) and the Mickey Stevens Sports Complex of over 40 acres. Other active recreation facilities in this neighborhood are playgrounds and school ballfields.

The following are major local recreational facilities:

5) Winslow Playfield - Approximately 14 acres located at Greeley Avenue. This playfield was originally three acres. Since it is located within the airport's clear zone, several houses that were adversely affected by aircraft noise were purchased and removed from the site by the State of Rhode Island. The resulting parcels from the house lots and abandoned streets are leased to the City. The new facilities include four girls softball fields, one basketball court, one tot lot, and one concession building with a restroom. Two or more soccer fields are planned for this site."

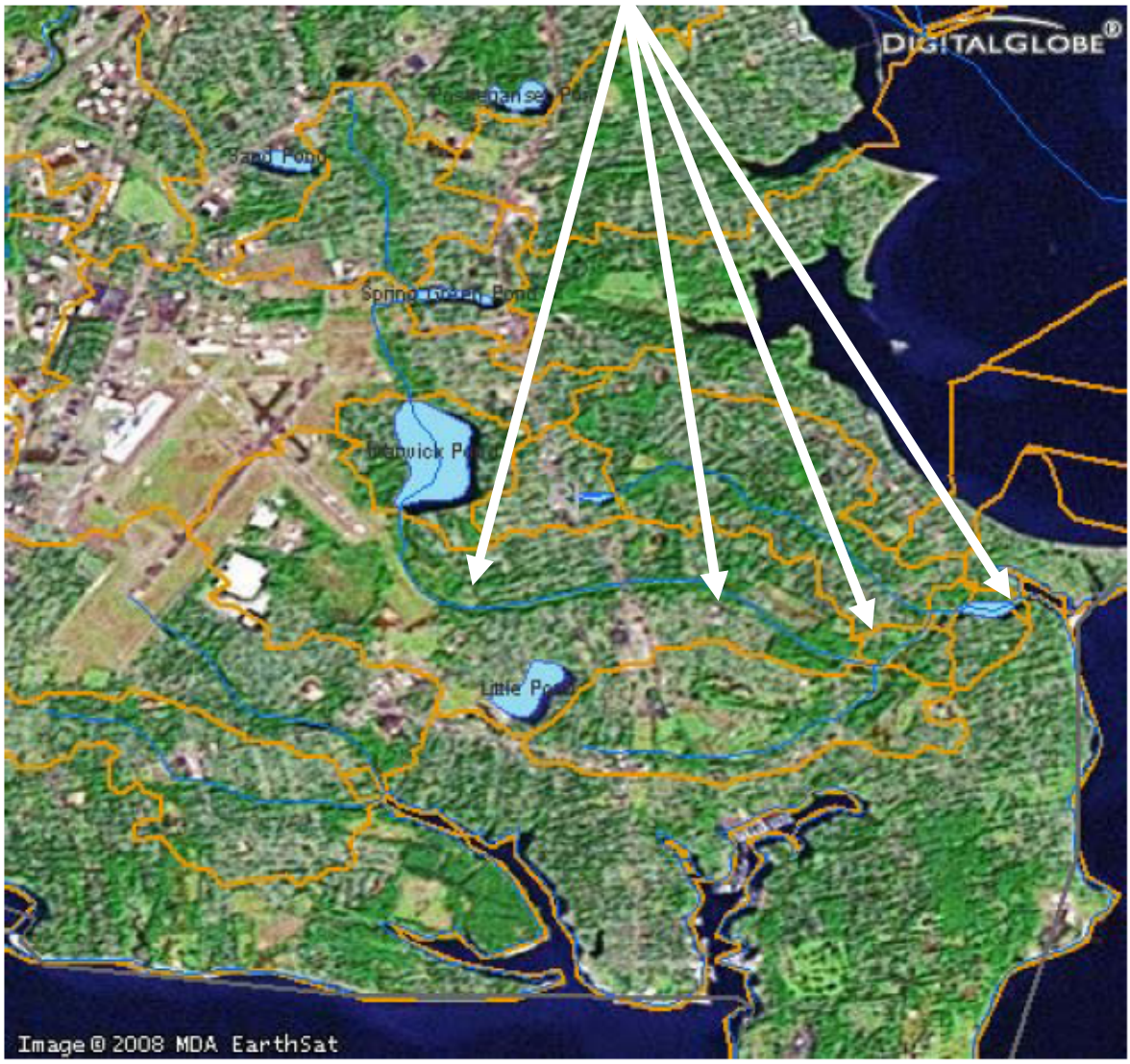
These recreational resources are eliminated by the B4 Build option without consideration of adverse effect the action would have on the children in the community and officials responsible for the management of these recreational resources. The document is entirely absent study of feasible and prudent alternatives to minimize the harm caused by the B4 build option. The DEIS should clearly describe the method of relocating these recreational facilities as well as the costs associated with construction of new ball fields as a mitigating measure for likely alternative B4.

Winslow Playfield

5.10 Wetlands and Waterways
5.11 Water Quality
5.12 Fish, Wildlife, and Plants
5.13 Threatened and Endangered Species
(Buckeye Brook)

The limits of this geographic study do not include the entire Buckeye Brook watershed. This document contains insufficient study of impacts on the entire Buckeye Brook ecosystem from immediate and cumulative impacts of pas and proposed build actions. Absent such an investigation, a rational determination of "insignificant impact" cannot be determined because the entire scope of impact was never studied leading to a weak foundation for this study's conclusion that Buckeye Brook will not be adversely impacted. This study must expand to study of the entire watershed as depicted below.

Buckeye Brook Watershed



5.10 Wetlands and Waterways
5.11 Water Quality
5.12 Fish, Wildlife, and Plants
5.13 Threatened and Endangered Species
(Buckeye Brook)

This study must provide further analysis on deicing impacts on water quality and the aquatic health of the ecosystem addressing how past violations involving the release of deicing fluid into the surrounding water bodies have impacted poor water quality as well as habitats for aquatic and riparian-dependant species. This plan inadequately addresses the quality, quantity and mitigation of pollutants discharged into Buckeye Brook and Warwick Pond from existing and proposed stormwater collection devices on Airport property and therefore does not properly disclose all the impacts on fish and wildlife habitat from those discharges.

The DEIS must complete a more systematic evaluation of *cumulative* impacts from past and proposed airport infrastructure proposals that were documented to have discharged pollutants that adversely impacted water quality criteria such as; nutrients, dissolved oxygen, turbidity, coliform, pH and temperature from runoff sediment, oils, fuel, herbicides, solvents and deicing fluid degrading the water quality of Warwick Pond and Buckeye Brook as well as the entire in-stream habitat.

In view of the fact that the Airport use is one of the largest contributors of storm water discharge to the surrounding water bodies a baseline condition must be established in which to compare the impacts from the build options. The study fails to properly gauge the environmental effects of the no action or offer ongoing monitoring and mitigation to the degree required to assure effectiveness and discontinue impairment of adjacent receiving waters. The build options proposed increase in impervious surfaces would only cause to increase the adverse impacts on these water bodies and associated habitat a fact that is not sufficiently addressed within this plan and locally.

In addition to focusing on impacts from individual components of the build options the study must concentrate on the entire Buckeye Brook resource specifically identifying susceptible characteristics of the watershed and receiving waters that may have resulted from incremental adverse impacts overtime impacting the hydrologic functioning and health of the ecosystem and probability-impairing habitat within the Brook.

The build options will only serve to increase the existing maladies and continue to disrupt the natural characteristics of the surrounding ecosystem which is inconsistent with the NEPA demand that public projects include detailed mitigation that can be implemented and enforced through specific performance standards and monitoring.

5.10 Wetlands and Waterways
5.11 Water Quality
5.12 Fish, Wildlife, and Plants
5.13 Threatened and Endangered Species

**** (Associated comments are contained within the CRMC and Buckeye Brook sections and are hereby incorporated in this section by reference; See CRMC section)***

Inadequate discourse regarding avoidance of significant wetland impacts proposed at the 34 end of runway 16-34 for the likely B4 alternative. The wetland compensation analysis is deficient a rational discussion of reasonable alternatives including shifting runway 16-34 northwest to avoid or minimize wetland impact. The discussion on wetland compensation is also inadequate as it fails to evaluate whether the likely B4 build option would result in overall loss of “functional values” of the associated wetland complex after the build option is completed considering compensatory wetlands are viewed differently by the State of Rhode Island Wetland Regulations.

5.10 Wetlands and Waterways
5.11 Water Quality
5.12 Fish, Wildlife, and Plants
5.13 Threatened and Endangered Species

**** (Associated comments are contained within the CRMC and Buckeye Brook sections and are hereby incorporated in this section by reference; See CRMC section)***

This section does not sufficiently focus on cumulative consequences of the proposed impacts with that of past actions within the larger wetland, system other than reference generalized historic development within community. The City of Warwick Comprehensive Plan has determined that diminishing wetland resources are of special importance to the City because the rare wetland habitats within the suburban core provide a functional role as vital components of hydrologic systems home to unique and important wildlife habitat.

The study must supplement its analysis centered on numeric loss of wetlands to one of functional assessment of the wetlands being destroyed knowing that not all wetlands have the same value. The study must be expanded to include an evaluation of a full complement of wetland functions within the broader context of it purpose within the community and its capability to support wildlife and aquatic habitat, ranking the wetlands accordingly.

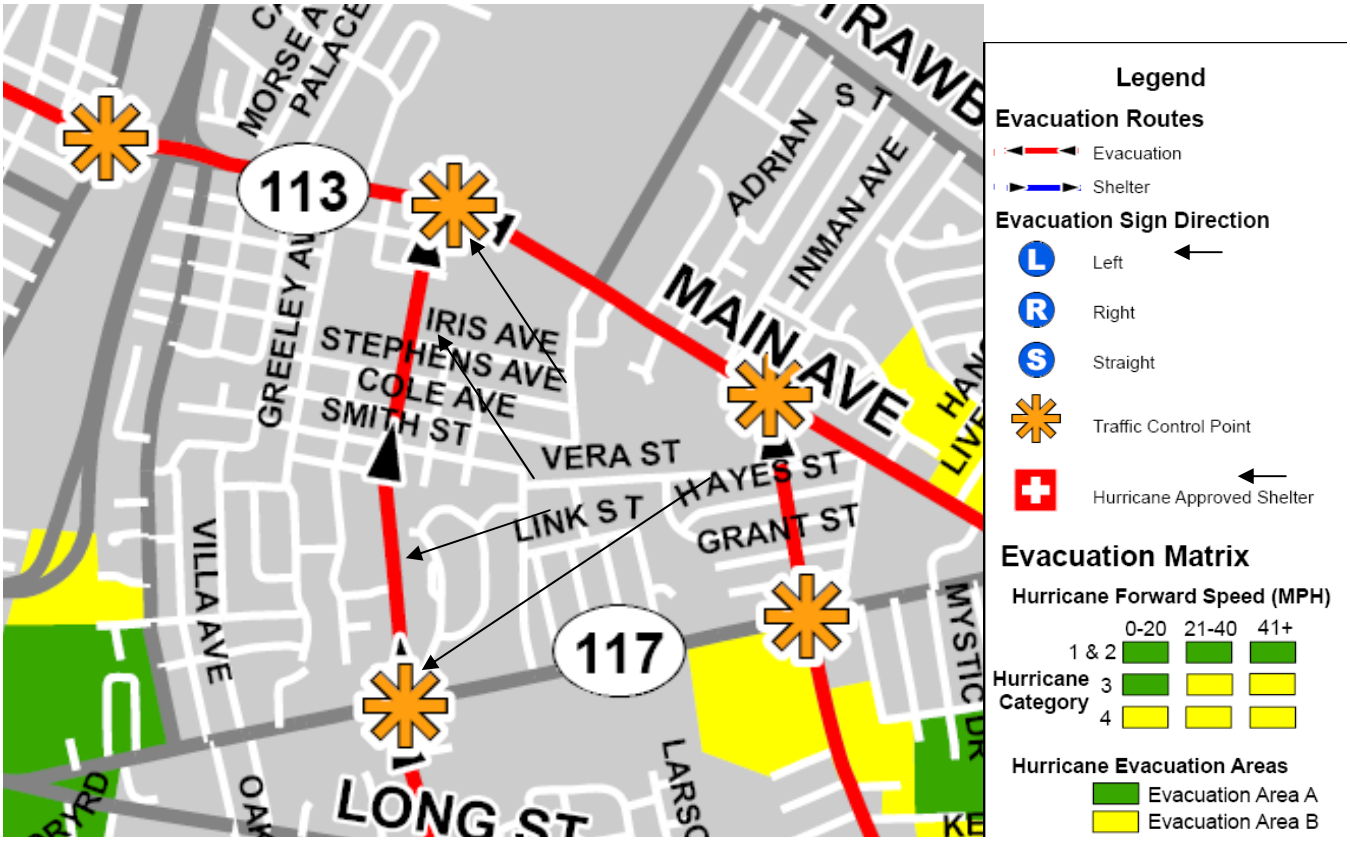
Include additional language. The City of Warwick retains the authority through the City Council to deny formal wetland applications. Additionally the City's zoning ordinance includes a pass through zoning regulation for all statutory buffer and setback requirements. The City's zoning ordinance requires a deviation be granted by the Zoning Board of review for all petitions seeking a setback or buffer closer than that required within the Freshwater Wetland Regulations. Even if permission is granted by the state DEM, the application must gain approval form the Zoning board as the regulation is considered a dimensional setback within the ordinance.

The current study area does not completely evaluate the impact on species from destruction and fragmentation of habitat due to the accrual of previous disturbances from past airport improvement projects. Nor does this section adequately evaluate the change in the larger ecosystem how the loss of critical habitat has and will affect fish, wildlife and plants. At times, the draft contains somewhat static and subjective analysis of the impacts associated with the build options that is ineffective in determining scale and proportion of impact of the build options.

The study lacks a defined index of past projects and how those projects along with the build options will affect an ever-shrinking natural ecosystem within an urbanized suburban core community. Given the fact that The City of Warwick has placed a premium on preserving, protecting and enhancing remaining wetland ecosystems in which plants, animals and fisheries may thrive this study must include an assessment of how close the build options bring the remaining ecosystem to a “breaking point” whereby further destruction cannot be tolerated.

5.14 Floodplains
5.15 Coastal Resources

The likely B4 build option eliminates a primary hurricane evacuation route contained within the State of Rhode Island Emergency Management Agency Rhode Island Hurricane Evacuation Maps prepared in coordination with the Rhode Island Department of Transportation and local community. Elimination of these evacuation routes are all but ignored within this plan.



5.15 Coastal Resources

The City of Warwick enjoys a long history of cooperation with the CRMC as co-stewards of Greenwich Bay and partners on many policy and regulatory initiatives designed to protect this critical resource. Consequently the City expected a much more comprehensive analysis but received a narrative that seemingly downplayed the causal relationship between the build options and resources affected including minimizing the role of the regulatory body entrusted to protect these resources.

Just prior to assembling our response, the City had the opportunity to read the precise meticulous comments submitted by Mr. James Boyd, Coastal Policy Analyst for the Coastal Resources Management Council. The City of Warwick concurs with all the remarks in the letter as they touch on many of the same points that we are assembling for the public comment period. As we see, no need to replicate the well laid out concerns of the CRMC the City of Warwick will adopt their concerns as a fundamental component of our response. (See attached)

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

COASTAL RESOURCES MANAGEMENT COUNCIL
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, R.I. 02879-1900

(401) 783-3370
FAX: (401) 783-3767

April 14, 2009

Mr. Richard Doucette
Environmental Program Manager
Federal Aviation Administration
12 New England Executive Park
Burlington, MA 01803

Re: PVD Airport Draft Environmental Consequences and Mitigation Technical Reports (dated March 11, 2009)

Dear Mr. Doucette:

The RI Coastal Resources Management Council (CRMC) is providing comments on the draft chapters referenced above that were received in this office on March 11, 2009 and subject of the EIS Coordination Group meeting held on April 8 at RIDEM in Providence. As you know, the FAA and RIAC are presently considering four Improvement Program (IP) options that consist of Alternatives B1, B2, B4, and No-Action. The CRMC received notice of Alternative B4 from you on February 9, 2009. We have reviewed the following draft chapters: 5.10 – Wetlands and Waterways; 5.11 – Water Quality; 5.12 – Fish, Wildlife, and Plants; 5.13 – Threatened and Endangered Species; 5.14 – Floodplains; and 5.15 Coastal Resources, and offer the following comments for your consideration.

Applicable RI Coastal Program policies and standards

Pursuant to the federal Coastal Zone Management Act (16 USC §§ 1451-1464), all of the currently proposed IP options are subject to CRMC Federal Consistency Review requirements due to the project location within the coastal community of Warwick and the potential impacts to coastal resources of the State. Please be advised that mitigation is an available option under the coastal program only when there are no feasible project alternatives that would avoid impacts. Moreover, any selected IP option will have to demonstrate compliance with the RI Coastal Resources Management Program (CRMP). In particular, the Federal Aviation Administration (FAA) and RI Airport Corporation (RIAC) should carefully review the requirements under Sections 300.2 (Filling, Removing, or Grading of Shoreline Features), 300.6 (Treatment of Sewage and Stormwater), 300.13 (Public Roadways, Bridges, Parking Lots, Railroad Lines, and Airports), 310 (Alterations to Freshwater Flows to Tidal Waters and Water Bodies and Coastal Ponds), and 320 (Inland Activities and Alterations That Are Subject to Council Permitting).

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Additionally, the CRMC Greenwich Bay Special Area Management Plan (SAMP) contains specific recommend actions for the airport that must be addressed to demonstrate that any proposed IP project is compliant to the maximum extent practicable with the SAMP in order to meet their burden under the RI Coastal Resources Management Program and Federal Consistency Review requirements. The following Greenwich Bay SAMP sections are relevant and applicable in this matter:

Section 390.5B.5

The Rhode Island Airport Corporation should examine the impacts from any expansion proposal on Greenwich Bay's tidal and freshwater wetlands and mitigate for any impacts within the watershed. Due to surficial geology and potential groundwater flow impacts from the airport may extend beyond the surface watershed.

Section 470.5B.17

The Rhode Island Airport Corporation should examine impacts from any expansion proposal on Greenwich Bay water quality, including the effects on stormwater runoff volume and quality and groundwater flow. Based on surficial geologic maps (*See* Appendix C) and potential groundwater flow, airport activities outside the watershed could affect Greenwich Bay water quality. Any expansion plans should address the use of BMPs that:

- Reduce nitrogen and bacteria concentrations
- Eliminate from reaching surface or groundwater other pollutants used at the airport, such as deicing chemicals
- Provide for a reduction in runoff volume and increase in water quality

Chapter 5.10 - Wetlands and Waterways

Under the present IP options, proposed total direct freshwater wetland alterations (federal and state) are: 47.0 acres for B1; 21.3 acres for B2; and 14.3 acres for B4. As correctly stated within Section 5.10, the RI Department of Environmental Management (RIDEM) has exclusive state jurisdiction for the freshwater wetlands within the project area. Although CRMC has jurisdiction for Freshwater Wetlands in the Vicinity of the Coast (*See* R.I.G.L. § 46-23-6 and CRMP Section 100.4), the subject freshwater wetlands in this matter are entirely within RIDEM review and permitting jurisdiction.

There are no coastal wetlands located within the delineated project area, and therefore no direct alterations to coastal wetlands will occur as a result of the project. Nevertheless, there is the potential for indirect impacts to coastal wetlands via waterways in the project area that flow to and are directly linked to Greenwich Bay and Narragansett Bay. In particular, alterations to freshwater wetlands and waterways associated with Buckeye Brook at the terminus of Runway 34 may detrimentally impact downstream coastal resources at Mill Cove. In addition, alterations to freshwater wetlands and waterways associated with Callahan Brook that may occur as a result of the realignment of Main Avenue under IP option B4 could detrimentally impact coastal wetlands in and along Brushneck Cove, which adjoins Greenwich Bay.

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Indirect impacts may occur due to soil erosion and sedimentation resulting from construction activity or alteration of stream hydrology resulting from fill placed within a stream or increased stormwater flows. Accordingly, where wetland and waterway impacts are unavoidable and permissible, all earth disturbance activity must include careful stabilization of bare soils with appropriate erosion and sediment controls until exposed soils are permanently vegetated or otherwise protected to prevent soil erosion in accordance with CRMP Section 300.2. Additionally, the physical alteration of wetlands and streams as a result of dredging and the placement of fill material within a stream or wetland may adversely impact the timing and volume of freshwater discharge downstream to coastal waters (See CRMP Section 310). Therefore, such impacts should be avoided, and in the case where project impacts are unavoidable, all necessary project modifications must be implemented so as to not adversely impact existing flows of the affected freshwater streams connected to coastal waters. (Note: comment regarding Section 5.11 - Water Quality)

Section 5.10.6 in the draft document describes proposed on-site and off-site mitigation methods to offset unavoidable impacts to freshwater wetlands for IP options B2 and B4 with potential mitigation sites and specific mitigation types listed in Table 5.10-20. A "Proposed Watershed Limits for Wetland Mitigation" and proposed mitigation sites are depicted in Figure 5.10.4. We suggest that since the airport and likely project improvements are located entirely within the watersheds of Upper Narragansett Bay (HUC 12 – 010900040902), which includes Buckeye Brook, and Greenwich Bay (HUC 12 – 010900040903), it is inappropriate to include areas outside of these watersheds for consideration of potential mitigation sites. As stated in lines 30-31 on page 33, mitigation is generally required to be located within the same watershed as the project. We note that proposed off-site mitigation areas, Sites 5, 7, and 8, are located within the Pawtuxet River watershed and are not within the same watershed(s) where the airport and potential improvement projects are located.

The CRMC strongly recommends consideration of any required off-site mitigation to be directed within the impacted watersheds, namely the Upper Narragansett Bay (inclusive of Buckeye Brook) and Greenwich Bay watersheds. Further, Section 390.5B.5 of the Greenwich Bay Special Area Management Plan (SAMP) states in part "[t]he Rhode Island Airport Corporation should examine the impacts from any expansion proposal on Greenwich Bay's tidal and freshwater wetlands and **mitigate for any impacts within the watershed**." (Emphasis added), Accordingly, any required mitigation for freshwater wetland impacts within the Greenwich Bay watershed should occur within the Greenwich watershed, otherwise the CRMC could find the project non-compliant with the CRMP, and therefore potentially deny federal consistency concurrence on this matter.

There are numerous examples of potential restoration opportunities described within the Greenwich Bay SAMP that could be considered in lieu of currently recommended Sites 5, 7, and 8. Chapter 3 of the SAMP describes a number of anadromous fish run restoration opportunities in Hardig and Maskerchugg Brooks as listed in Table 5. Section 350.3 including Table 10 and Figure 15 in the SAMP detail numerous coastal wetland restoration opportunities. The Greenwich Bay SAMP is available on the CRMC website here:

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http://www.crmc.ri.gov/regulations/SAMP_GreenwichBay.pdf. In addition, the Buckeye Brook Coalition (http://www.buckeyebrook.org/) could be helpful in identifying restoration and preservation opportunities along Buckeye Brook, while the Warwick Land Trust Commission (http://www.warwickri.gov/planning/wltc/index.htm) may be able to assist in identifying restoration and preservation opportunities especially in the Mill Cove area at the terminus of Buckeye Brook as it empties into Narragansett Bay at Conimicut Point. We also recommend including CRMC as an agency for mitigation site selection within section 5.10.6.3 of the draft technical document, since there may be consideration of offsite mitigation in coastal areas as recommended above.

In order for a selected IP project to be considered as consistent with the CRMP for federal consistency review purposes regarding wetlands and waterways, FAA and RIAC will need to clearly document that the project will meet all applicable requirements pertaining to freshwater wetlands to the maximum extent practicable and that there will be no detrimental impact to the flows (both timing and volume) of freshwaters discharging to coastal waters.

Section 5.11 – Water Quality

One of the outstanding issues concerning water quality is resolution of the RIPDES stormwater permit appeal as noted in Section 5.11.1. Satisfactory resolution of the RIPDES permit and the earliest possible construction and implementation of a new glycol blending facility along with a new glycol treatment facility is paramount to RIAC demonstrating that the proposed project will not have deleterious impacts to coastal waters. The fact that these new facilities are scheduled to be in place by 2020 (*See* lines 3-4 at 9) will result in 11 more years of insufficient stormwater quality management during winter months of de-icing operations. Despite RIAC's ongoing glycol capture and recovery program, RIAC should commit to accelerating the construction and implementation of these facilities at the earliest possible time.

As correctly stated, the airport is directly adjacent to tributaries of Mill Cove (Buckeye Brook and Warwick Pond) and Brushneck Cove (Tuscatucket and Callahan Brooks). Buckeye Brook is listed in the RIDEM 2006 303(d) List of Impaired Waters as not meeting state water quality standards due to biodiversity impacts and pathogens. In addition, Callahan and Tuscatucket Brooks are listed in the same report as also not meeting state water quality standards due to pathogens. Figures 5.11-1 and 5.11-2 depict existing stormwater outfalls and outfalls to be relocated that discharge to and affect the afore-noted water bodies. We note that any existing structural stormwater best management practices (BMP) should be identified and referenced to its associated outfall in a table that can be cross-referenced with these figures for any future submission for permitting purposes. It is not currently possible with the presented information to determine what, if any, level of treatment is provided for each stormwater discharge outfall location. Furthermore, although the current airport stormwater system may not contribute stormwater directly into Callahan Brook, as noted in section 5.11.3.1, the relocation of Main Avenue under IP option B4 will likely result in impacts to the brook from construction activity and direct discharges from stormwater outfalls that will be installed as part of a new stormwater system as noted in section 5.11.3.4. Therefore, appropriate control and treatment of stormwater will be required in this area as part of the project.

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An important assumption that section 5.11.2.1 makes is that all of the analyses regarding water quality and quantity are based on all buildings and roadways within voluntary areas of land acquisition would be demolished and replaced with pervious cover. While an ideal assumption from the standpoint of impervious cover reduction, this assumption has significant bearing on stormwater management calculations. For example, total impervious cover increases under the B4 alternative for the Mill Cove and Brushneck Cove drainages areas from an additional 21.1 acres to a further increase of 10.8 acres. The net result is a total impervious surface area increase of 31.9 acres over the No-Action alternative. This is almost a 7 percent increase above the No-Action alternative's 472 acres of impervious surfaces. These increases will have significant negative impacts to hydrology and water quality if not properly controlled and treated. Therefore, since the removal of all buildings and roadways within voluntary areas of land acquisition and replacement with pervious cover cannot be guaranteed by a date certain, it is our position that all analyses and data in the FEIS should be presented as both total removal and no removal scenarios to ensure a reasonable comparison of either circumstance.

As noted at the April 8, 2009 Coordination Group meeting, the CRMC and RIDEM are in the process of developing a new RI Stormwater Manual that will have dramatic impacts as to how stormwater will be controlled and treated as compared to existing state requirements. A public draft of the new stormwater manual should be completed by the end of this month (April) and will be posted on the DEM website, likely under the RIPDES stormwater permitting web pages. It is expected that the new manual will be finalized and adopted during the coming summer following public workshops and any necessary revisions. Any proposed improvements at the airport will have to meet the new manual requirements. The primary changes under the new stormwater manual are new low impact development requirements established in accordance with R.I. General Laws § 45-61.2, as follows:

a) Maintain pre-development groundwater recharge and infiltration on site to the maximum extent practicable;

b) Demonstrate that post-construction stormwater runoff is controlled, and that post-development peak discharge rates do not exceed pre-development peak discharge rates; and

c) Use low impact-design techniques as the primary method of stormwater control to the maximum extent practicable.

Given the likely timing of FEIS submittal and a Federal Consistency request for concurrence from the CRMC, it is all but certain that the airport improvement project will be subject to the new standards when going through the state permitting process. Accordingly, RIAC and its consultants should be reviewing the proposed standards in the new stormwater management manual when available for review. Given the pending adoption of these regulatory changes, the airport project should be designed to incorporate appropriate low impact design (LID) techniques. Additionally, the CRMC will be revising Section 300.6 of the coastal program coincident with adoption of the

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new RI stormwater manual to require LID techniques as the primary means of stormwater management. Thus, any selected IP Option will have to meet the new CRMC standards.

Section 5.11.6.1 indicates that designed stormwater controls will "meet RIDEM stormwater requirements and RIPDES requirements." As noted above, CRMC will be modifying CRMP Section 300.6 and that any stormwater controls constructed as part of the airport improvement program must also be consistent with Section 300.6 for compliance with the coastal program. Please note that although the current state stormwater design manual requires 80-percent total suspended solids (TSS) removal, the new stormwater standards will require a 90-percent TSS removal rate along with a 40% removal of total phosphorous and 30% for total nitrogen. Many of the LID system designs included in the revised manual have been installed and monitored at the University of New Hampshire Stormwater Center. A report on their pollutant removal efficiency is available at their website: http://www.unh.edu/erg/cstev/.

There appears to be an over reliance on traditional best management practices (e.g., catch basins and other structural controls) to manage stormwater runoff from the project site. Typically, these stormwater management controls have been very poorly maintained and, thus contribute to and exacerbate poor water quality. Given that the state is rapidly moving to adopt LID requirements as the primary means of treating stormwater runoff, the project must be designed to incorporate LID practices to the maximum extent practicable for all design elements of the proposed project, including new roadways, taxi areas, buildings, cargo facilities, etc.

Section 5.11.5 correctly points out that both the airport and the surrounding areas have significantly changed in terms of increased impervious surfaces and urbanization over the last several decades. Nonetheless, as we've noted in earlier correspondence, the subject of this DEIS is the airport, not the surrounding urban areas. Therefore, our concern is focused on the cumulative impacts of the airport, not the surrounding area. The proposed redevelopment of the airport presents an opportunity to correct existing deficiencies in the stormwater infrastructure and treatment practices to improve water quality In particular the discharge of glycol and other de-icing agents to the waters of Buckeye Brook resulting from airport operations. As we've noted above, the CRMC recommends that RIAC resolve the RIPDES permit appeal expeditiously with RIDEM and accelerate construction and implementation of the new glycol blending and glycol treatment facilities to eliminate detrimental impacts to the water quality of Buckeye Brook.

Notwithstanding previous comments submitted by CRMC (*See* letters of April 18, 2007 to VHB and July 2, 20007 to FAA) in response to water quality issues, the CRMC remains concerned about potential deleterious impacts to coastal waters from both the No-Build and IP option alternatives. There will be an increase in total impervious surface areas in all scenarios. Despites assurances in the draft report that the project will meet all applicable water quality standards and regulatory requirements through the treatment and control of stormwater, there is at present considerable uncertainty (*e.g.*, resolution of RIPDES stormwater permit appeal; removal of buildings and roadways in land acquisition areas and replacement with pervious surfaces; meeting new imminent state stormwater standards, among others) in regard to the ability of RIAC to meet those

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requirements. In order for a selected IP project to be considered as consistent with the CRMP Section 300.6 for federal consistency review purposes, FAA and RIAC will need to clearly document that the project will meet all applicable requirements pertaining to stormwater management and water quality standards to the maximum extent practicable and that there will be no detrimental impact to coastal waters.

Chapter 5.12 - Fish, Wildlife, and Plants

We note that the draft report states "past actions at the Airport have not directly impacted aquatic biodiversity of Buckeye Brook…" (*See* report at 26). We would conclude otherwise absent any water quality monitoring data to affirm that airport de-icing operations have not had an impact on aquatic biodiversity in this water body. We suggest amending this section of the report for any future submittal to recognize that airport operations may in fact have detrimentally impacted aquatic biodiversity, especially in light of prior actions of RIDEM against RIAC for illegal release of glycol to Buckeye Brook (*See* RIDEM Office of Compliance & Inspection Water Pollution File No. WP/03-01). Otherwise, there are no specific technical comments or other corrections. The CRMC, however, is very concerned about any IP options that would negatively impact coastal dependant species such as Alewife (*Alosa pseudoharengus*), Blueback herring (*A. aestewalis*), and American Eel (*Anguilla rostrata*), and encourages approaches that eliminate any negative impacts first and then followed by minimization of impacts when impacts are absolutely unavoidable. As noted in the draft report, IP option B4 and the No-Action alternative will not result in any physical alterations to Buckeye Brook. Nevertheless, we note the impacts on biodiversity and water quality resulting from glycol and other de-icing agents as part of normal airport operations. The CRMC's legislative mandate is to "preserve, protect, develop, and where possible, restore the coastal resources of the state…" (*See* R.I.G.L. § 46-23-1).

Chapter 5.13 - Threatened and Endangered Species

No specific technical comments or corrections noted.

Chapter 5.14 - Floodplains

The EIS should not solely rely upon the existing FEMA Flood Insurance Study as a basis for determining potential floodplain impacts, as the FEMA study does not take into account historic and projected sea level rise. Based on long-term monitoring, sea level has risen at the Newport tide gauge over 8 inches since 1929 (*See*: http://tidesandcurrents.noaa.gov/sltrends/sltrends_station.shtml?stnid=8452660). Additionally, the CRMC adopted new policy in regard to sea level rise in CRMP Section 145, and the Council conservatively expects a three-foot increase in sea levels by the end of this century. Such increases in sea level will have profound impacts on coastal flood plains and upstream connected areas. The CRMC has been collaborating with the State Building Commissioner on revising state regulations concerning construction within flood plains and we expect to be revising Section 145 in the coming months to adopt amended policy and standards. We would encourage future submittals of flood

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plain analyses to include datums based on or converted to NAVD 88 and NAD 83, which are now the national standards, rather than NGVD 29. This will provide a more accurate assessment of floodplain impacts.

FEMA is currently converting Kent County Flood Insurance Rate Maps (FIRM) to the new digital format (DFIRM) and plans to issue preliminary maps this coming June (*See*: http://www.floodmaps.fema.gov/fhm/Scripts/st_stat.asp). Since there will be approximately 5000 cubic yards of fill placed within the 100-year floodplain in the vicinity of Runway End 34 for IP option B4, RIAC will need to undertake hydraulic and hydrologic studies to evaluate the potential downstream flooding impacts from this fill. We recommend that any such studies be forwarded for review by FEMA. Further, we would recommend that RIAC submit a Conditional Letter of Map Amendment (CLOMA) to FEMA, rather than submitting a LOMA as indicated in section 5.14.2.4.to ensure that FEMA agrees that the proposed fill would not have an impact in the floodplain.

Chapter 5.15 - Coastal Resources

The Greenwich Bay SAMP is primarily a planning document, but it also contains policy, regulations, and prohibitions, and therefore lines 24 on page 1 and 27 on page 4 are incorrect. All Greenwich Bay SAMP provisions are enforceable under the CRMP. While SAMP Section 390.5B.5 and 470.5B.17, noted above, are specific to the airport, these sections are recommendations. Nevertheless, RIAC must be addressed them adequately to demonstrate that any proposed project is compliant to the maximum extent practicable with the SAMP in order to meet their burden under the RI Coastal Management Program and Federal Consistency Review.

Line 9-10 on page 7 should be corrected to indicate a 2400 barrel (120,000 gallon) threshold for jurisdictional consideration under CRMP Section 320.A.1.

In regard to any proposed IP option meeting the requirements of CRMP Sections 300.2 (Filling, Removing, or Grading of Shoreline Features), 300.6 (Treatment of Sewage and Stormwater), 300.13 (Public Roadways, Bridges, Parking Lots, Railroad Lines, and Airports), 310 (Alterations to Freshwater Flows to Tidal Waters and Water Bodies and Coastal Ponds), and 320 (Inland Activities and Alterations That Are Subject to Council Permitting), in addition to the above referenced Greenwich Bay SAMP provisions, FAA and RIAC will need to clearly document that the project will meet all these provisions to the maximum extent practicable and that there will not be any detrimental impact to the State's coastal resources for CRMC to find compliance under federal consistency review.

In regard to the Federal Consistency review process, please know that the CRMC will conduct its review in accordance with the Council's *Federal Consistency Manual* available on the CRMC website: http://www.crmc.ri.gov/regulations.html. Furthermore, the CRMC may require that all other applicable state permits (*e.g.*, RIPDES, DEM Freshwater Wetlands) be obtained by RIAC

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prior to the FAA submitting its consistency determination request to the CRMC (*See* CRMP Section 400.D.1.).

Please call (401-783-3370) or email me jboyd@crmc.ri.gov with any questions.

Sincerely,

James Boyd, Coastal Policy Analyst
Coastal Resources Management Council

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cc: Grover Fugate, CRMC Executive Director
Jeffrey Willis, CRMC Deputy Director

5.17 Hazardous Materials, Pollution Prevention, and Solid Waste

This section of the DEIS does not adequately discuss pollution prevention techniques, pollution abatement and cleaning up of pollution once the spill has occurred especially for deicing fluids, aircraft fuel, lubricants and solvents that can be carried by storm water (non-point source pollution) into neighboring water bodies from the new cargo facility, apron, taxiways, runways and roadways associated with the build options. The DEIS also inadequately addresses prevention of contamination of groundwater as the plan cites only conformance with RIDEM even as Build option 4 is within the groundwater watershed of the Greenwich Bay Special Area Management Plan. The DEIS does not suitably address runoff both temporary and permanent from roadway relocations and from those projects contained within the build options.

5.18 Light Emissions

The DEIS document should not use subjective statements to evaluate the light emissions such as *"not substantially add to the cumulative light emissions".* The City requests a more sophisticated technical assessment of the "cumulative impact" by the use of specific thresholds established by a baseline intensity of foot-candle with an evaluation of the proposed increase over the existing condition for all light emissions proposed by the Build options including but not limited to passenger terminal, south service area, expanded parking facility, new integrated cargo facility, runways and relocated roadways. This document also does not address secondary light emissions from future infrastructure induced by the Build options such as a private hangers, freight, and storage or parking facility.