

May 8, 2007

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

J. Lawrence DeNardis
155 Burr Street
New Haven, CT 06512

SUBJECT: PERMIT NO. 20003049-KZ
Tweed-New Haven Airport Authority
J. Lawrence DeNardis
City of New Haven and Town of East Haven

Dear Mr. DeNardis:

Enclosed is the signed permit which constitutes the approval of your application to conduct regulated activities. Your attention is directed to the conditions of the enclosed permit. Construction or work must conform to that which is authorized.

If you have not already done so, you should contact your local Planning and Zoning Office to determine local permit requirements on your project, if any. Also, your activity may be eligible for General Permit authorization from the U.S. Army Corps of Engineers. The State of Connecticut forwarded a copy of its tentative determination for this activity to the Corps for its determination of General Permit eligibility. You do not need to apply directly to the Corps unless they notify you. If General Permit eligibility has already been determined, an authorization letter will be attached to this permit. Otherwise, authorization will be mailed separately. For more information regarding this new federal process, you may write to the Corps New England Division, Regulatory Branch, 696 Virginia Road, Concord, Massachusetts 01742-2751; or, call (800) 343-4789.

If you have any questions concerning your permit, please contact staff of the Permit section at (860)424-3034.

Sincerely,

/s/ Kevin Zawoy

Kevin Zawoy
Environmental Analyst III
Office of Long Island Sound Programs

KZ/ko

Enc.

Sent Certified Mail, Return Receipt Requested to: Commissioner of Transportation; Adjacent Property Owners; All Parties; the Mayor, First Selectman or Town Manager; Shellfish Commission; the Planning and Zoning Commissions; and the Harbor Management Commission.

Copies Furnished to:

Hoyle, Tanner & Associates, Inc.
Conservation Commission
DEP/Wildlife Division
DEP/Fisheries Division

Dept. of Agriculture/Aquaculture Division
DOT/Bureau of Aeronautics and Ports
File No. 20003049-KZ
Desk Copy

PERMIT

Permit No: 200003049-KZ

Municipalities: New Haven and East Haven

Work Area: Morris Creek and Tuttle Brook at Tweed- New Haven
Airport property located at 155 Burr Street

Permittee: Tweed-New Haven Airport Authority
155 Burr Street
New Haven, CT 06512

Pursuant to section 22a-359 through 22a-363f and section 22a-28 through 22a-35 of the Connecticut General Statutes (“CGS”) and section 401 of the Federal Clean Water Act, as amended, and in accordance with CGS section 22a-98 and the Connecticut Water Quality Standards dated December 2002, a permit is hereby granted by the Commissioner of Environmental Protection (“Commissioner”) to create runway safety areas at both ends of Runway 2/20, extend and rehabilitate existing Taxiway B, relocate portions of Morris Creek and Tuttle Brook, relocate a portion of Dodge Avenue, modify tide gate structures off Cart Road, and conduct approximately 57 acres of tidal wetland restoration/enhancement as is more specifically described below in the SCOPE OF AUTHORIZATION, in Morris Creek and Tuttle Brook off property identified as the “work area” above. The work area includes tidal wetlands along Morris Creek and Tuttle Brook.

*******NOTICE TO PERMITTEES AND CONTRACTORS*******

FAILURE TO CONFORM TO THE TERMS AND CONDITIONS OF THIS PERMIT MAY SUBJECT THE PERMITTEE AND ANY CONTRACTOR TO ENFORCEMENT ACTIONS, INCLUDING PENALTIES AND INJUNCTIONS, AS PROVIDED BY LAW.

SCOPE OF AUTHORIZATION

The Permittee is hereby authorized to conduct the following work as described in application #20003049-KZ, including 156 sheets of plans dated November 2005, April 2005 and January 2006 submitted by the Permittee to the Commissioner and attached hereto as follows:

Runway-2 Safety Area

1. temporarily install over Morris Creek an approximately 37-foot-wide by 80-foot-long access bridge over the existing abandoned bridge abutments at abandoned Ora Avenue of which approximately 50 linear feet of the superstructure of the temporary bridge will be located waterward of the high tide line as shown on drawing numbers WM-17.1 and WM-18 of the plans attached hereto as follows:

- a. install approximately 60 linear feet of sheet pile cofferdam along the eastern and western bridge abutments described in paragraph 1., above;
 - b. remove approximately 450 cubic yards of existing bridge abutment located along the eastern and western embankments of the site;
 - c. restore the creek embankments and install approximately 450 cubic yards of fill material to grade the areas of the removed bridge abutments described in paragraph 1.b., above; and
 - d. install approximately 120 cubic yards of riprap over approximately 3,700 square feet over the fill areas described in paragraph 1.c. above to stabilize the area where the abutments were removed as described in paragraph 1.b., above;
2. temporarily install a second approximately 37-foot-wide by 80-foot-long long temporary access bridge over the newly realigned Morris Creek at Uria Street to permit access between the runway safety area (“RSA”) and the taxiway work areas east of Runway 2-20 as shown on drawings numbers RW2-8.2 and RW2-9.2 of the plans attached hereto;
 3. temporarily place between Taxiway "B" and Ora Avenue approximately 1,800 cubic yards of fill material over 650 linear feet to construct an approximately 30' wide x 2' high haul road which shall include a temporary wetland crossing located adjacent to Ora Avenue constructed of approximately 10 cubic yards of clean fill over 150 square feet and three 24-inch diameter reinforced concrete pipes (“RCP”) as shown on drawing numbers TWB-5.2, TWB-6.2, and TWB-8.2 of the plans attached hereto;
 4. construct an approximately 500-foot-wide-by-1000-foot-long Runway-2 RSA as follows:
 - a. fill an approximately 0.50 acre area of the existing Morris Creek channel with 4,800 cubic yards of clean fill to construct a portion of the RSA;
 - b. excavate approximately 9.41 acres of existing tidal wetlands located south of the existing Runway-2 terminus to create an area for placing construction grade fill material;
 - c. fill the excavated area described in paragraph 4.b., above, with approximately 32,000 cubic yards of clean construction grade material to create the southern portion of the RSA and to provide space to support an approximately 10-foot by 12-foot Medium Intensity Airfield Lighting System Flashing (“MALSF”) building and access area;

- d. install within the filled areas described in paragraph 4.c., above, a approximately 22-foot-wide-by-27-foot-long gravel section containing an approximately 10-foot-wide by 12-foot-long MALSF building with concrete support walls, an approximately 10-foot-wide by 1,100-foot-long gravel maintenance road leading to the MALSF lights and MALSF building. The MALSF facility includes lights and light stanchions that vary in height from approximately 1 foot to 16 feet, 4-foot to 6-foot deep electrical manholes, and electrical feed lines as shown on drawing numbers RW2-5.2 and RW2-6.2 of the plans attached hereto; and
 - e. temporarily store excavated organic material from Runway-2 RSA for treated dewatering measures as shown on drawings numbers SEC-1, SEC-24, and SEC 27.1. of the plans attached hereto;
5. relocate Morris Creek at the southern end of the site from an area just south of the terminus of Runway-2 and connecting to existing Morris Creek at the terminus of the proposed MALSF access road described in paragraph 4.c., above, by excavating a total of approximately 30,000 cubic yards of material over 165,900 square feet, of which approximately 1,200 linear feet of such newly-created creek is located waterward of the high tide line as follows:
- a. temporarily install approximately 50 linear feet of sheet piling located within the existing creek bed at the terminus of existing Runway-2 to temporarily block off existing Morris Creek water flows;
 - b. construct the new creek with a top of slope width of approximately 76 feet and a bottom slope width of approximately 46 feet providing for a 3:1 embankment slope on both sides of the new creek;
 - c. install slope protection erosion matting on both sides of the new creek embankments from the toe of the embankment slope to the top of slope and conduct tidal wetlands plantings through such erosion matting protection as shown on drawings numbers RW2-3.2, RW2-6.2, RW2-9.2 and RW2-12.2 of the plans attached hereto;
 - d. install approximately 350 cubic yards of 8-inch to 12-inch riprap over approximately 9,500 square feet located waterward of the high tide line on both sides of the southern terminus of the new creek in the area where the new creek merges with the existing Morris Creek bed;
 - e. construct an approximately 860-foot-long by 20-foot-wide gravel and soil maintenance access roadway located along the landward side of the new creek described in paragraph 5., above, of which approximately 400 linear feet of the accessway is located waterward of the high tide line as follows:

- i. place approximately 550 cubic yards of fill to create the accessway containing a 3:1 slope along the creek side and a 2:1 slope along the upland side; and
 - ii. install three stormwater outlet discharge systems beginning on the landward side of the proposed maintenance access roadway described in paragraph 5.e., above, and terminating at the realigned section of Morris Creek described in paragraph 5., above, as follows: (1) install within the southernmost section of proposed realigned Morris Creek a catch basin with 4-foot sump leading to an 18-inch diameter RCP set on bedding material and containing a 7-foot-wide by 5-foot-long concrete headwall, an 18-inch diameter check valve, and approximately 640 square feet of 5-inch-diameter stone riprap outlet protection within the creek; (2) rehabilitate an existing 12-inch diameter RCP located within the approximate middle of proposed realigned Morris Creek by constructing a 7-foot-wide by 5-foot-long concrete headwall with a 12-inch diameter check valve, and approximately 640 square feet of 5-inch-diameter stone riprap outlet protection within the creek; and (3) install within the northernmost end of the proposed realigned Morris Creek one catch basin with 4-foot sump leading to 12-inch diameter RCP set on bedding material and containing a 7-foot-wide-by-5-foot-long concrete headwall, a 12-inch diameter check valve, and approximately 640 square feet of 5-inch-diameter stone riprap outlet protection within the creek;
6. place approximately 100 cubic yards of 5-inch riprap over approximately 2,700 square feet along the western embankment of existing Morris Creek located approximately 200 feet east of the proposed MALSF building;
7. construct approximately 4-foot-wide low-lying soil berms to elevation 4.5 feet NGVD on both sides of existing Morris Creek and adjacent to the existing Runway-2 glideslope area for a total of approximately 600 linear feet on the western side and approximately 900 linear feet on the eastern side of the creek containing 3:1 horizontal/vertical slopes as follows:
 - a. place approximately 430 cubic yards of clean fill material over an approximately 16,000 square foot area waterward of the high tide line to create the soil berms described in paragraph 7., above;
 - b. place approximately 6,000 square feet of slope stabilization erosion control matting atop the toe of slope and landward of the soil berms described in paragraph 7., above; and
 - c. install six discharge points to convey stormwater from the upland side of the soil berms described in paragraph 7., above, to the existing Morris Creek as follows:

- i. excavate and backfill to the elevation of the surrounding grade an approximately 4-foot-wide by 50-foot-long trench to install approximately 40 linear feet of 15-inch diameter RCP containing a 15-inch flared end section, a 3-foot-wide by 5-foot-high concrete headwall, a 15-inch diameter boot valve and approximately 25 square feet of 5-inch riprap outlet protection located on the western berm section adjacent to the Morris Causeway culverts;
- ii. excavate and backfill to the elevation of the surrounding grade an approximately 4-foot-wide by 38-foot-long trench to install approximately 28 linear feet of 12-inch diameter RCP containing a 12-inch flared end section, a 3-foot-wide by 5-foot-high concrete headwall, a 12-inch diameter boot valve and approximately 25 square feet of 5-inch riprap outlet protection located on the western berm section, approximately 100 feet southwest of the existing glideslope building;
- iii. excavate and backfill to the elevation of the surrounding grade an approximately 4-foot-wide by 30-foot-long trench to install 20 linear feet of 12-inch diameter RCP containing a 12-inch flared end section, a 3-foot-wide by 5-foot-high concrete headwall, a 12-inch diameter boot valve and approximately 20 square feet of 5-inch riprap outlet protection located on the western berm section located approximately 200 feet southeast of the 3rd residence on the right along Morris Causeway, traveling in a northeasterly direction;
- iv. excavate and backfill to the elevation of the surrounding grade an approximately 4-foot-wide by 110-foot-long trench to install 100 linear feet of 12-inch diameter RCP containing a 12-inch flared end section, a 3-foot-wide by 5-foot-high concrete headwall, a 12-inch diameter boot valve and approximately 20 square feet of 5-inch riprap outlet protection located on the eastern berm section adjacent to the intersection of South End Road and Morris Causeway;
- v. excavate and backfill to the elevation of the surrounding grade an approximately 4-foot-wide by 86-foot-long trench to install 76 linear feet of 15-inch diameter RCP containing a 15-inch flared end section, a 3-foot-wide by 5-foot-high concrete headwall, a 15-inch diameter boot valve and approximately 20 square feet of 5-inch riprap outlet protection located on the eastern berm section adjacent to intersection of South End Road and Morris Causeway; and

- vi. excavate and backfill to the elevation of the surrounding grade an approximately 4-foot-wide by 38-foot-long trench to install 28 linear feet of 12-inch diameter RCP containing a 12-inch flared end section, a 3-foot-wide by 5-foot-high concrete headwall, a 12-inch diameter boot valve and approximately 20 square feet of 5-inch riprap outlet protection located on the eastern berm section adjacent to the New Haven sewage pump station;

Taxiway Bravo

8. rehabilitate and extend portions of Taxiway Bravo located along the eastern side of Runway-2 as follows:
 - a. excavate approximately 3,500 cubic yards of organic material in areas waterward of the high tide line, in a location beginning approximately 200 linear feet north of proposed Taxiway Juliet and ending approximately 900 linear feet south of proposed Taxiway Juliet and as shown on drawing numbers TWB-3.2, TWB-6.2, TWB-9.2, TWB-10, TWB-11.1 and TWB-12 through TWB-20 of the plans attached hereto;
 - b. place approximately 610 cubic yards of sub-base, base, structural and wearing pavement layers waterward of the high tide line to reconstruct Taxiway Bravo;
 - c. install approximately 270 linear feet of perimeter lights and related power lines in conduits along the taxiway fill described in paragraph 8.a., above;
 - d. place approximately 650 linear feet of 5-inch riprap with filter fabric over an approximately 13,000 square foot area waterward of the high tide line at the western bank of the channel adjacent to the taxiway extension, as shown on drawings numbers TWB-2.2 and TWB-3.2 of the plans attached hereto; and
 - e. place approximately 2,550 cubic yards of fill to elevation 5.5 feet NGVD in areas waterward of the high tide line and place paving for the taxiway extension, located in a line beginning approximately 200 linear feet North of proposed Taxiway Juliet and ending approximately 900 linear feet south of proposed Taxiway Juliet and as shown on drawing numbers TWB-3.2, TWB-6.2, TWB-9.2, TWB-10, TWB-11.1 and TWB-12 through TWB-20 of the plans attached hereto;
9. excavate and backfill approximately 10 cubic yards of material to install a 24-inch diameter stormwater outlet pipe at invert elevation 0.0 feet NGVD containing a scour pad constructed of approximately 6 cubic yards of riprap over approximately 280 square feet located approximately 130 feet south of the temporary haul road described in paragraph 3., above;

10. excavate, cut, remove, and cap approximately 300 linear feet of existing drainage outfall pipe servicing a total of four existing drainage outfalls located along the last 200 feet (running in a southerly direction) of existing Taxiway Bravo and construct a single 18-inch diameter RCP outfall pipe at invert elevation -0.9 feet NGVD located adjacent to Taxiways Bravo and Juliet as follows:
 - a. excavate approximately 60 cubic yards of material over 260 square feet to install 60 linear feet of 18-inch diameter RCP outfall pipe;
 - b. construct an approximately 5-foot-high by 8-foot-long concrete headwall to support the landward terminus of the outfall pipe described in paragraph 10.a., above; and
 - c. install approximately 10 cubic yards of riprap over 270 square feet to construct a scour pad at the waterward terminus of the outfall pipe described in paragraph 10., above;

Runway-20 Safety Area

11. construct an approximately 500-foot-wide by 1000-foot-long Runway-20 RSA with localizer building, localizer antenna array, DME antenna and paved access service road as follows:
 - a. fill approximately 1,400 linear feet of existing Tuttle Brook channel over 0.94 acres with approximately 21,300 cubic yards of clean fill to construct the RSA;
 - b. excavate approximately 24,000 cubic yards of upland area to install twin 584-foot-long by 24-foot-wide by 6.5-foot-high concrete culverts with concrete footings at invert elevation approximately 2.21 feet NGVD within the upland and beneath the RSA described in paragraph 11. above, containing approximately 25-foot-wide by 6'-to-12'-high concrete wingwalls on both the downstream and upstream faces of the culverts;
 - c. install within the creek bed and embankments of the downstream side of the culverts and within the realigned section of Morris Creek described in paragraph 12., below, approximately 70 cubic yards of riprap over approximately 2,475 square feet;
 - d. install within the creek bed and embankments of the upstream side of the culverts and within the realigned section of Tuttle Brook approximately 310 cubic yards of riprap over approximately 4,120 square feet;
 - e. construct an approximately 7-foot-wide by 3-foot-high outfall culvert by installing an approximately 32-foot-wide by 8-foot-high concrete headwall and approximately 50 cubic yards of riprap over approximately 1,800 square feet to create a scour pad through the proposed Runway-20 RSA and terminating in the realigned section of Morris Creek described in paragraph 12., below;

- f. install approximately 50 linear feet of new concrete-encased telephone duct bank underneath the proposed Morris Creek alignment, located approximately 50 feet south of where the proposed creek crosses the existing centerline of Dodge Avenue, as shown on DWG. No. RW20-3.2.; and
 - g. install approximately 150 linear feet of underground power lines in conduits and approximately 50 linear feet of 30-inch sewer line with 12 inches of concrete encasement underneath the proposed Morris Creek alignment, located both ends of the proposed culvert, as shown on DWG. No. RW 20-5.3.;
12. realign existing Morris Creek by breaching an opening to existing Morris Creek just north of the northernmost existing culvert running through the airport terminal area, and construct within the upland area approximately 1,320 linear feet of approximately 40-foot wide meandering tidal creek (excluding the 584-foot length of the culverts described in paragraph 11.b., above), as shown on drawing numbers RW20-3.2 and RW20-6.3, that will connect to the concrete culverts described in paragraph 11.b. above, and line areas landward of the realigned Morris Creek with approximately 207,000 square feet of slope stabilization erosion matting and conduct tidal wetlands plantings as shown on drawing numbers RW-20-3.2 of the plans attached hereto;

Tide Gates

13. remove and replace the existing wooden tide gate structures located adjacent to Cart Road in Morris Creek as follows:
- a. install a temporary porta-dam on both the upstream and downstream sides of the existing tide gates to conduct dewatering of the area as shown on drawing numbers SEC-16 through SEC-18 of the plans attached hereto;
 - b. conduct re-grouting of approximately 100 linear feet of existing tide gate abutments located along the eastern and western embankments of the site;
 - c. remove and replace three existing trash racks and frames located along the upstream side of the existing tide gate structure;
 - d. remove the existing wooden flap valves, wooden supporting structure and structural elements from the three bays of the existing tide gates formed by the existing concrete abutments and replace such structures with three 6-foot-high by 10-foot-wide tide gate frames and gates, two gates being motor-operated and one being a simple flap valve;
 - e. install within and atop the tide gate structures handrails, steel grating, two electric motors and an 8-foot-high security fence with a 4-foot-wide pedestrian walkway as shown on drawings numbers WM-24 through WM-31 of the plans attached hereto;

- f. install approximately 180 linear feet of new security fence atop the concrete abutments of the tide gate structures;
- g. place a total of approximately 250 cubic yards of riprap over approximately 6,000 square feet along both the embankments and within the river bottom of both the upstream and downstream sides of the existing tide gate structure as shown on drawings numbers WM-24 and WM-25 of the plans attached hereto; and
- h. install two water pressure sensors/transmitters along both the upstream and downstream sides of the tide gate structure; and

Wetlands Enhancement/Restoration

- 14. conduct tidal wetland enhancement and restoration of approximately 56.66 acres of existing and new tidal wetlands by removing *Phragmites* vegetation within all work areas authorized herein containing heavy stands of *Phragmites* using low ground pressure track-mounted equipment with a spray tower and remove such dead strands of vegetation by cutting and mulching and by modifying the existing tide gate structures described in paragraph 13., above, to allow for tidal waters to flood Tweed-New Haven Airport and several adjacent properties to elevation 3.5 feet NGVD, including the installation and enhancement of tidal creeks within two main sections of the site: one adjacent to Dean Street and the other adjacent to Ora Avenue and east of Taxiway B as follows:
 - a. install eight approximately 20-foot-wide-by-40-foot-long temporary bridge crossings to access the work sites with heavy equipment as shown on drawing numbers WM-1.1 through WM-9.2 of the plans attached hereto;
 - b. install two temporary drainage ditch crossings with three 24-inch diameter concrete pipes with approximately 150 square feet of filter fabric and approximately 100 cubic yards of 6-inch gravel/stone fill running along the sides of Ora Avenue as shown on drawing number TWB-8.2 of the plans attached hereto;
 - c. utilize low ground pressure track-mounted equipment to remove approximately 2,500 cubic yards of organic material from areas adjacent to Dean Street and *Phragmites* vegetation from approximately 4,100 linear feet of tidal channels and restore such channels to a width of approximately 10 feet and a depth of approximately -1.5 feet NGVD, and construct a total of approximately 2,500 linear feet of new 10-foot-wide tidal channels to elevation approximately -2.0 feet NGVD as shown on drawings numbers WM-6.2 and WM-9.2 of the plans attached hereto;

- d. utilize low ground pressure track-mounted equipment to remove approximately 1,200 cubic yards of organic material from areas adjacent to Ora Avenue and east of the proposed Taxiway Bravo extension and *Phragmites* vegetation from approximately 1,700 linear feet of tidal channels and restore such channels to a width of approximately 10 feet and a depth of approximately -1.5 feet NGVD, and construct a total of approximately 3,300 linear feet of new approximately 10-foot-wide tidal channels to elevation approximately -2.0 feet NGVD as shown on drawing numbers WM-2.2 and TWB-3.2 of the plans attached hereto;
- e. install two water pressure sensors/transmitters with electric lines on the opposite side of Eden Street and on the upstream and downstream sides of an existing 4-barrel concrete culvert at Morris Causeway; and
- f. install flexible boot check valves on seven existing, 12-inch drainage outfalls on the western bank of Morris Creek adjacent to Dean Street, as shown on DWG No. SEC-40.

UPON INITIATION OF ANY WORK AUTHORIZED HEREIN, THE PERMITTEE ACCEPTS AND AGREES TO COMPLY WITH ALL TERMS AND CONDITIONS OF THIS PERMIT.

SPECIAL TERMS AND CONDITIONS

1. Except as specifically authorized by this permit, no equipment, material or debris shall be deposited, placed or stored in any tidal wetland or watercourse, nor shall any tidal wetland or watercourse be used as a staging area or accessway other than as provided herein.
2. Prior to the completion of the work authorized herein, the Permittee shall remove the temporary fill associated with the construction of the haul road authorized in the SCOPE OF AUTHORIZATION paragraph 3., above, to the pre-existing conditions and elevations. Such work shall include the removal of all drainage structures and materials, and in any area where backfill is required to achieve pre-existing grades, the Permittee shall utilize on-site stockpiled organic material or the Planting Material as described in SPECIAL TERMS AND CONDITIONS paragraph 29., below. In addition, any such restored area shall be planted with native salt tolerant wetland species from an off-site source.
3. Prior to the discharge of stormwater from the two proposed outfall pipes described in the SCOPE OF AUTHORIZATION paragraphs 9. and 10., above, the Permittee shall install the vegetated stormwater swale containing catch basins and check dams located west of Taxiway "B" and south of Taxiway "J" as shown on drawing numbers TWB-2.2 and TWB-5.2 of the plans attached hereto.
4. Prior to the initiation of the work authorized herein, the Permittee shall submit for the review and written approval of the Commissioner a stormwater maintenance plan for

the stormwater swale and catch basin structures. Such plan shall include: a schedule for the inspection and clean out of each identified stormwater device; an outline for the maintenance protocol for each device or technique proposed to be utilized for the pre-treatment of stormwater; and the name and contact information of the person or position who will be responsible for maintaining the devices or techniques to be utilized.

5. All temporary bridges authorized pursuant to the SCOPE OF AUTHORIZATION paragraphs 1. and 2., above, shall be removed upon completion of the project and all areas shall be restored to their pre-work condition unless otherwise authorized herein.
6. The Permittee shall complete each of the tide gate and wetland restoration activities as described in the SCOPE OF AUTHORIZATION paragraphs 13. and 14., above, in their entirety, prior to the expiration of this authorization.
7. The Permittee shall conduct the tidal wetland plantings in accordance with tables in drawing numbers RW2-14 and RW20-18 at locations within the relocated Morris Creek and Tuttle Brook as shown on drawing numbers RW2-3.2, RW2-5.1, RW2-9.2, RW2-12.2, RW20-3.2 and RW20-6.3 of the plans attached hereto.
8. The Permittee shall only use plant source material that is native to Long Island Sound to complete the tidal wetland plantings described in SPECIAL TERMS AND CONDITIONS paragraph 7., above. Prior to the commencement of work authorized herein, the Permittee shall provide to the Commissioner the company name and address of the source of plant material intended to be utilized within the mitigation area. The Permittee shall notify the Commissioner of any intended change in the source of plant material.
9. The Permittee shall conduct monitoring of the tidal wetland restoration area described in the SCOPE OF AUTHORIZATION paragraph 14., above, for a period no less than 5 years. Such monitoring shall consist of the submission of a semi-annual monitoring report for the first two growing seasons and an annual monitoring report for the following three growing seasons to the Commissioner for review and written approval. The first such monitoring report must be submitted no later than December 15th of any year and shall contain at a minimum the following information: 1) locations of all control stakes used for restoration monitoring purposes; 2) location of a control salt marsh reference site; 3) background and current salinity values for the control and reference sites; 4) a photographic record of both the control and reference site pre- and post-construction; 5) the dates work on mitigation site began and ended; 6) description of monitoring inspections that occurred since the last report; 7) remedial actions taken during the monitoring year, such as: removing debris, adjustments made to tide gates, replanting, controlling invasive plant species, applying additional herbicide, or adjusting hydrology, etc; 8) visual estimates of percent cover of tidal wetland grasses versus *Phragmites* grasses at the established control sites; 9) percent survival of tidal wetland plantings; 10) plan for removal of additional invasive plant species, if required; 11) status and condition of all erosion control measures within the mitigation

area; 12) general health and vigor of the surviving plants; and 13) remedial measures recommended to achieve or maintain the proposed functions and values of the mitigation sites. The Permittee shall immediately implement any additional remedial recommendations that may be prescribed by the Commissioner in writing. If the Commissioner determines following the 5 year monitoring program that the approved mitigation plan has not been successful, the Permittee shall submit a plan to achieve success at this site or application to conduct off-site tidal wetland creation/restoration of approximately 11.24 acres of land. Such restoration work shall be completed within 2 years of approval of any plan approval or authorization.

10. The Permittee shall for a minimum of two (2) years following completion of the mitigation/restoration work described in SCOPE OF AUTHORIZATION paragraph 14., above, undertake the following within the mitigation areas, if and as necessary: 1) replace dead or missing plant species which have not already been compensated for by a suitable volunteer species, and 2) repair existing or establish new erosion control measures. The Permittee shall submit to the Commissioner no later than December 15th of any year documentation indicating whether any such work was required and, if so, when completed.
11. Prior to the filling of Morris Creek adjacent to Runway-2, all low marsh tidal wetland vegetation consisting of *Spartina alterniflora* and other suitable species will be removed and transplanted to the relocated Morris Creek adjacent to the Runway-2 RSA. Such removal and transplanting will be coordinated and conducted in such a manner that the individual plants will not stay out of the ground for a period exceeding 48 hours. Care must be taken to ensure that all *Spartina alterniflora* and other suitable species plants are relocated to the same habitat type (e.g. elevation, water exposure, etc.) from which they were removed.
12. The Permittee shall utilize the recommended aquatic label glyphosate approved by the DEP Pesticide Division for the mortality of the *Phragmites* vegetation described in the SCOPE OF AUTHORIZATION paragraph 14., above.
13. The Permittee shall utilize low ground pressure track-mounted equipment that does not exceed 3 pounds per square inch (psi) on the marsh surface for the spraying of Rodeo, cutting/mulching of *Phragmites* vegetation, creation of meandering tidal creeks and removal of excavated marsh material as described in the SCOPE OF AUTHORIZATION paragraph 14., above. The Permittee may utilize low ground pressure mats for the construction of tidal creek channels provided the mats are specified for generating a total ground pressure that does not exceed 3 psi. Prior to the utilization of any low ground pressure mats, the Permittee shall submit to the Commissioner for review and written approval the specifications for such matting and the weights of equipment to be utilized.
14. Prior to the completion of the work authorized herein, the Permittee shall seed disturbed land adjacent to the reconstructed/extended Taxiway Bravo, disturbed lands east and west of the Runway-20 RSA, the area to be disturbed immediately northwest

of the Runway-2 RSA and the RSAs themselves with a mixture of “warm seasonal grasses” consisting of 60 percent little bluestem, 20 percent indiangrass and 20 percent switchgrass, making up approximately 23 acres of new or enhanced grassland habitat. Within 30 days of completing the grass seeding, the Permittee shall submit for the review and written approval of the Commissioner a mowing plan for the 23 acres of grassland noted above. The Permittee shall conduct mowing of these grassland areas in accordance with the approved plan unless otherwise authorized in writing by the Commissioner.

15. At no time shall the Permittee modify the surfaces of the RSAs described in the SCOPE OF AUTHORIZATION paragraphs 4. and 11., above, including but not limiting to paving, unless otherwise authorized pursuant to a permit issued by the Commissioner.
16. In the event of that a significant weather event is forecast that may cause coastal flooding, the Permittee may close the two motorized tide gate structures described in the SCOPE OF AUTHORIZATION paragraph 14.d., above, for a period not to exceed 48 hours in any single event.
17. Prior to the commencement of work authorized herein to repair and modify the tide gates structures described in the SCOPE OF AUTHORIZATION paragraph 13., above, the Permittee shall install the porta-dam structure described in the SCOPE OF AUTHORIZATION paragraph 13.a., above. Such porta-dam structure shall be maintained in optimal operating condition to prevent sedimentation from entering the waterway until the work authorized herein has been completed. Should the Permittee determine that an alternative enclosure device is appropriate, the Permittee may submit in writing to the Commissioner a request to utilize a different device. Such change may not be implemented without written approval from the Commissioner.
18. Prior to the initiation of the work authorized herein, the Permittee shall submit to the Commissioner a signed Memorandum of Understanding that establishes an operating and funding agreement between the Permittee and the City of New Haven concerning the construction, operation and maintenance of the tide gate structure and related appurtenances. Such memorandum will establish the ownership of the tide gates, who will be responsible for the daily and emergency operation of the gates, how the tide gates will be maintained in the event that Tweed-New Haven Airport or any successor is no longer in operation, who will be responsible for the maintenance of the tide gate structure and related appurtenances and from which source(s) maintenance funding will flow. Maintenance personnel of the City of New Haven and/or the Tweed-New Haven Airport Authority and/or their contractors are authorized under this permit to maintain the Tuttle Brook/Morris Creek channel and tide gate structure and related appurtenances, with such maintenance to include, but not be limited to, the following activities: 1) removal of debris/flotsam collected by the tide gate trash racks; 2) repair/reinstallation of erosion control matting and/or plantings along the creek banks consistent with this permit; 3) removal of debris/flotsam from the creek channel itself;

and 4) minor repairs to the tide gate structure and related appurtenances, including the water pressure sensors/transmitters.

19. Prior to the commencement of work authorized herein, the Permittee shall obtain all applicable permits from the Department of Environmental Protection for any water discharges into the New Haven Harbor in accordance with sections 22a-430 and 22a-430(b) of the Connecticut General Statutes.
20. The Permittee shall line all areas of the relocated Morris Creek with erosion control matting as shown on drawing numbers RW2-3.2, RW2-6.2, RW2-9.2, RW2-12.2, RW20-3.2, RW20-6.3 and TWB-3.2 of the plans attached hereto. The erosion control matting shall be designed to stabilize the designed/constructed slopes. All erosion control matting must be maintained in optimal operating condition until the site has stabilized.
21. All temporary fill or disturbed areas created by the work authorized herein must be restored to their pre-work conditions including reestablishing all original contours and revegetated with suitable vegetation and/or erosion control matting or materials.
22. The Permittee may discharge any pumped dewatering wastewater within the dewatering area as shown on drawing number SEC-16 of the plan attached hereto, provide that such dewatering area is constructed on the upland landward of the high tide line and outside tidal wetlands. The Permittee shall maintain the dewatering area in optimal operating condition and shall not allow any unfiltered water carrying sediments to discharge into Morris Creek.
23. The Permittee shall not store equipment, construction materials or clean or repair any machinery within 25 feet of a tidal wetland or tidal watercourse.
24. A complete copy of this permit, including its drawings, special conditions and any amendments, shall be maintained at the work site whenever work is being performed. The Permittee shall assure that all contractors, subcontractors and other personnel performing the authorized work are fully aware of all permit terms and conditions.
25. The Permittee shall comply with all the terms and conditions of the Soil and Sediment Control Plan dated January, 2001 for the Runway Safety Area & Taxiway Improvements Project and shall implement and maintain the soil erosion and sediment control measures as detailed in drawing numbers SEC-1 through SEC-43 of the plans attached hereto;
26. Prior to the in-water construction work authorized in the SCOPE OF AUTHORIZATION paragraphs 5., 11. and 15., the Permittee shall install silt control curtains within the confines of Morris Creek as shown on sheets SEC-3, SEC-6, SEC-7, SEC-13 and SEC-14 of the attached drawings. The Permittee shall maintain such silt control curtains in optimal operating conditions until the work authorized herein has been completed and the areas have stabilized.

27. The Permittee shall not allow the release of any fine particles into the waterway to reconstruct the tide gate structures authorized in the SCOPE OF AUTHORIZATION paragraph 13., above, during the shellfish spawning period of June 1st through September 30th of any year. If the Permittee detects elevated levels of fines being released into the waterway during this timeframe of June 1st through September 30th, the Permittee shall immediately stop all work on-site and shall not recommence until erosion control measures or confinement structure have been repaired and are operational.
28. Upon completion of the tidal wetland mitigation work described in the SCOPE OF AUTHORIZATION paragraph 14., above, the Permittee shall place a minimum of 500 bushels of cultch directly downstream of the reconstructed tide gate structures described in the SCOPE OF AUTHORIZATION paragraph 13., above. Prior to initiation of the placement of the cultch, the Permittee shall contact the Department of Agriculture/Bureau of Aquaculture to arrange for use of shellfish scow capable of accessing and depositing the shell material at the site.
29. All backfill material authorized herein must be of an organic nature either excavated from the site or of a manmade planting substrate (“Planting Material”) containing no less than 75% sand by weight and with an organic content no less than 10% and no more than 15%. The Planting Material must be analyzed by USDA-approved methodology for organic matter by loss-ignition of oven-dried samples dried at 105 degrees centigrade. The mineral fraction must be analyzed to determine weight percentage of sand, as determined after passing a 2-millimeter sieve. Sand particles are defined to be between 0.05 and 2.0 millimeters in diameter. The Planting Material soil must be free of seed and roots of invasive species and inspected and approved by the Connecticut Department of Transportation Office of Environmental Planning prior to its use.
30. Prior to the commencement of work authorized herein, the Permittee shall record a copy of this permit on the land records in the Clerk’s Office in the municipalities of East Haven and New Haven. Confirmation of such recording must be submitted to the Commissioner for review and written approval prior to commencement of work.
31. In the event that the Permittee or any successor does not maintain an operational airport at the site, the Permittee or any successor shall, within 60 days of the termination of such operations, submit a closure plan to the Commissioner, for review and approval, to address the presence of the fill authorized in the SCOPE OF AUTHORIZATION, paragraph 4. above. The closure plan, approval of which shall be within the sole discretion of the Commissioner, shall present an evaluation of alternatives regarding the presence of the fill authorized in the SCOPE OF AUTHORIZATION, paragraph 4. above, including but not limited to the environmental and economic impacts and estimated cost of removal of such fill and restoration of the RSA-2 area to pre-construction condition.

GENERAL TERMS AND CONDITIONS

1. All work authorized by this permit shall be completed within five years from date of issuance of this permit (“work completion date”) in accordance with all conditions of this permit and any other applicable law.
 - a. The Permittee may request a two-year extension of the work completion date. Such request shall be in writing and shall be submitted to the Commissioner at least 30 days prior to said work completion date. Such request shall describe the work done to date, work which still needs to be completed and the reason for such extension. The Commissioner shall grant or deny such request in her sole discretion.
 - b. Any work authorized herein conducted after said work completion date or any authorized two year extension thereof is a violation of this permit and may subject the Permittee to enforcement action, including penalties, as provided by law.
2. In conducting the work authorized herein, the Permittee shall not deviate from the attached plans, as may be modified by this permit. The Permittee shall not make de minimis changes from said plans without prior written approval of the Commissioner.
3. On or before (a) 90 days after completion of the work authorized herein, or (b) upon expiration of the work completion date or any authorized two year extension thereof, whichever is earlier, the Permittee shall submit to the Commissioner as-built drawings prepared and sealed by a licensed engineer, licensed surveyor or licensed architect, as applicable, of the work area showing all contours, bathymetries, tidal datums and structures.
4. Not later than two weeks prior to the commencement of any work authorized herein, the Permittee shall submit to the Commissioner, on the form attached hereto as Appendix A, the name(s) and address(es) of any contractor(s) employed to conduct such work and the expected date for commencement and completion of such work.
5. The Permittee shall maintain all structures or other work authorized herein in good condition. Any such maintenance shall be conducted in accordance with applicable law including, but not limited to, CGS sections 22a-28 through 22a-35 and CGS sections 22a-359 through 22a-363f.
6. The Permittee shall notify the Commissioner in writing of the commencement of any work and completion of all work authorized herein no later than three days prior to the commencement of such work and no later than seven days after the completion of such work.
7. The Permittee shall dispose of aquatic sediments in accordance with the terms and conditions of this permit. All waste material generated by the performance of the work authorized herein shall be disposed of by the Permittee at an upland site approved for the disposal of such waste material, as applicable.

8. In undertaking the work authorized hereunder, the Permittee shall not cause or allow pollution of wetlands or watercourses, including pollution resulting from sedimentation and erosion. For purposes of this permit, "pollution" means "pollution" as that term is defined by CGS section 22a-423.
9. Any document required to be submitted to the Commissioner under this permit or any contact required to be made with the Commissioner shall, unless otherwise specified in writing by the Commissioner, be directed to:

Permit Section
Office of Long Island Sound Programs
Department of Environmental Protection
79 Elm Street
Hartford, Connecticut 06106-5127
(860) 424-3034
Fax # (860) 424-4054

10. The date of submission to the Commissioner of any document required by this permit shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the Commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" as used in this permit means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or a Connecticut or federal holiday shall be submitted or performed on or before the next day which is not a Saturday, Sunday, or a Connecticut or federal holiday.
11. The work specified in the SCOPE OF AUTHORIZATION is authorized solely for the purpose set out in this permit. No change in the purpose or use of the authorization work or facilities as set forth in this permit may occur without the prior written authorization of the Commissioner. The Permittee shall, prior to undertaking or allowing any change in use or purpose from that which is authorized by this permit, request authorization from the Commissioner for such change. Said request shall be in writing and shall describe the proposed change and the reason for the change.
12. This permit may be revoked, suspended, or modified in accordance with applicable law.
13. This permit is not transferable without prior written authorization of the Commissioner. A request to transfer a permit shall be submitted in writing and shall describe the proposed transfer and the reason for such transfer. The Permittee's obligations under this permit shall not be affected by the passage of title to the work area to any other person or municipality until such time as a transfer is authorized by the Commissioner.

14. The Permittee shall allow any representative of the Commissioner to inspect the work authorized herein at reasonable times to ensure that it is being or has been accomplished in accordance with the terms and conditions of this permit.
15. In granting this permit, the Commissioner has relied on representations of the Permittee, including information and data provided in support of the Permittee's application. Neither the Permittee's representations nor the issuance of this permit shall constitute an assurance by the Commissioner as to the structural integrity, the engineering feasibility or the efficacy of such design.
16. In the event that the Permittee becomes aware that he did not or may not comply, or did not or may not comply on time, with any provision of this permit or of any document required hereunder, the Permittee shall immediately notify the Commissioner and shall take all reasonable steps to ensure that any noncompliance or delay is avoided or, if unavoidable, is minimized to the greatest extent possible. In so notifying the Commissioner, the Permittee shall state in writing the reasons for the noncompliance or delay and propose, for the review and written approval of the Commissioner, dates by which compliance will be achieved, and the Permittee shall comply with any dates which may be approved in writing by the Commissioner. Notification by the Permittee shall not excuse noncompliance or delay and the Commissioner's approval of any compliance dates proposed shall not excuse noncompliance or delay unless specifically stated by the Commissioner in writing.
17. In evaluating the application for this permit the Commissioner has relied on information and data provided by the Permittee and on the Permittee's representations concerning site conditions, design specifications and the proposed work authorized herein, including but not limited to representations concerning the commercial, public or private nature of the work or structures authorized herein, the water-dependency of said work or structures, its availability for access by the general public, and the ownership of regulated structures or filled areas. If such information proves to be false, deceptive, incomplete or inaccurate, this permit may be modified, suspended or revoked, and any unauthorized activities may be subject to enforcement action.
18. The Permittee may not conduct work waterward of the high tide line or in tidal wetlands at this permit site other than the work authorized herein, unless otherwise authorized by the Commissioner pursuant to CGS section 22a-359 et. seq. and/or CGS section 22a-32 et. seq.
19. The issuance of this permit does not relieve the Permittee of his obligations to obtain any other approvals required by applicable federal, state and local law.
20. Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under this permit shall be signed by the Permittee and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my

knowledge and belief, and I understand that any false statement made in this document or its attachments may be punishable as a criminal offense."

21. This permit is subject to and does not derogate any present or future property rights or powers of the State of Connecticut, and conveys no property rights in real estate or material nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the property or activity affected hereby.

Issued on May 1 _____, 2007.

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

/s/ Gina McCarthy
Gina McCarthy
Commissioner

Permit Application No. 20003049-KZ
Tweed-New Haven Airport Authority
KZ/ko

OFFICE OF LONG ISLAND SOUND PROGRAMS

APPENDIX A

**TO: Permit Section
Department of Environmental Protection
Office of Long Island Sound Programs
79 Elm Street
Hartford, CT 06106-5127**

PERMITTEE: Tweed New Haven Airport Authority
Lawrence DeNardis
155 Burr Street
New Haven, CT 06512

Permit No: 20003049-KZ, New Haven/East Haven

CONTRACTOR 1: _____

Address: _____

Telephone #: _____

CONTRACTOR 2: _____

Address: _____

Telephone #: _____

CONTRACTOR 3: _____

Address: _____

Telephone #: _____

EXPECTED DATE OF COMMENCEMENT OF WORK: _____

EXPECTED DATE OF COMPLETION OF WORK: _____

PERMITTEE: _____
(signature) (date)