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**APPENDIX J: Box Turtle Protection Plan**

**Eastern Box Turtle Protection Plan**

Eastern Box Turtle, a State Special Concern species afforded protection under the Connecticut Endangered Species Act and listed as a Greatest Conservation Need species in Connecticut’s Comprehensive Wildlife Conservation Strategy (CT DEP 2005), is known to occur on the site. The following protective measures are recommended to satisfy requirements from the Connecticut Department of Energy & Environmental Protection (“CTDEEP”) Wildlife Division and follow protocols developed from previous rare species consultations and state-approved protection plans. This plan is focused on preventing incidental mortality to eastern box turtle but will also serve to limit mortality to other herpetofauna located within the construction, including hognose snake, should they be present.

Davison Environmental, LLC will serve as the Environmental Monitor for this project to ensure that Eastern Box Turtle protection measures are implemented properly.

The Contractor shall contact Eric Davison at least 5 business days prior to the pre-construction meeting. Mr. Davison can be reached by phone at (860) 803-0938 or via email at eric@davisonenvironmental.com.

The recommended Eastern Box Turtle protection program consists of the following components:

1. Isolation of the project perimeter: *fencing to be installed no later than April 1st, 2021*
2. Targeted searches of the project area prior to construction: *between April 1st and May 31st*
3. Periodic inspection and maintenance of isolation structures: *throughout construction period*
4. Education of all contractors and sub-contractors prior to initiation of work on the site
5. Documentation and reporting: *submitted to CSC and NDDB by December 31, 2021*
6. **Isolation Barrier (Erosion and Sedimentation Controls)**
   1. Plastic netting used in a variety of erosion control products (i.e., erosion control blankets, fiber rolls [wattles], reinforced silt fence) has been found to entangle wildlife, including reptiles, amphibians, birds and small mammals. These products or reinforced silt fence should not be used on the project. Temporary erosion control products, either erosion control blankets, fiber rolls composed of processed fibers mechanically bound together to form a continuous matrix (netless) and/or netting composed of planar woven natural biodegradable fiber should be used to avoid/minimize wildlife entanglement.
   2. Installation of erosion and sedimentation controls (i.e., silt fencing), required for erosion control compliance and creation of a barrier to migrating/dispersing herpetofauna, should be installed by the Contractor prior to clearing activities or any earthwork, and prior to April 1, 2021. The intention is to install the barrier prior to box turtle emergence from hibernation.
   3. The barrier fencing should be installed with minimal ground disturbance and tree clearing, preferably using a single small backhoe or trenching equipment.
   4. The fencing will consist of non-reinforced conventional erosion control woven fabric, installed approximately six inches below surface grade and staked at seven to ten-foot intervals using four-foot oak stakes or approved equivalent. The Contractor is responsible for daily inspections of the fencing for tears or breeches in the fabric and accumulation levels of sediment, particularly following storm events of 0.25 inch or greater. Davison Environmental will provide periodic inspections of the fencing throughout the duration of construction activities, generally on a biweekly frequency or more frequently if site conditions warrant.
   5. The barrier fencing should extend into the existing quarry, to create a zone of early-successional habitat between the forest and the barrier fencing to aid in box turtle location and capture.
   6. The Environmental Monitor will inspect the work zone following erosion control barrier installation to ensure the barrier is satisfactorily installed.
   7. All openings in the isolation barrier, used during the work day for accessibility, should be closed with hay bales at the completion of each day.
   8. The extent of the barrier fencing will be as shown on the site plans. The Contractor should have available additional barrier fencing should field conditions warrant extending the fencing as directed by Davison Environmental.
   9. No equipment, vehicles or construction materials shall be stored outside of the isolation barrier fencing.
   10. All silt fencing shall be removed within 30 days of completion of work and permanent stabilization of site soils.
7. **Targeted Searches – Pre-Construction**
   1. Upon completion of the barrier fence installation, the project limits will be searched for eastern box turtle from April 1st through May 30th. The purpose of this work is to locate and remove all box turtles from within the construction zone. This time period coincides with the period of highest activity and movement for box turtle just prior to the nesting period.
   2. All turtles observed will removed from the project area to the identified *Relocation Zone* that is located immediately southwest of the project limits.
   3. The time of day, frequency and intensity of the pre-construction searches should be determined by the Environmental Monitor based on weather conditions and success of relocation progression. It is anticipated that searches will be conducted once per week at a minimum, with more intensive and frequent searches conducted during periods of high activity which would increase the likelihood of captures.
   4. The *Relocation Zone* consists of an area of mixed hardwood forest/old field transition zone at the edge of the active quarry. This is the area where all (5) turtles were observed. All existing mining and stockpiling activity within this zone should temporarily cease while relocation is underway.
   5. The *Relocation Zone* should also be searched from April 1st through May 30th, to relocate the (5) observed box turtle, along with others that may be present onsite. Should any turtles be observed/relocated in this zone, it would indicate that the subject turtle did not hibernate within the project limits. Any turtles found within the *Relocation Zone* will be documented and left *in situ*.
8. **Contractor Education**
   1. Prior to the start of construction, the Contractor shall attend an educational session at the pre-construction meeting with Davison Environmental. This orientation and educational session will consist of an introductory meeting with Davison Environmental providing photos of herpetofauna that may be encountered during construction activities, including eastern box turtles, emphasizing the non-aggressive nature of these species, the absence of need to destroy wildlife that might be encountered and the need to follow the prescribed protection measures.
   2. The Contractor will be provided with cell phone and email contacts for Davison Environmental to immediately report encounters with any turtles or other herpetofauna. Educational poster materials will be provided by Davison Environmental and displayed on the job site to maintain worker awareness as the project progresses.
9. **Turtle Protective Measures – During Construction**
   1. Prior to the start of construction each day, the Contractor shall search the entire work area for turtles. The Environmental Monitor will also conduct periodic inspections of the work area depending upon weather conditions, observed turtle activity, or other factors.
   2. If a turtle is found, it shall be immediately moved by carefully grasped in both hands, one on each side of the shell, between the turtle’s forelimbs and the hind limbs, and placed just outside of the isolation barrier closest to where it was encountered. The Environmental Monitor should be notified of any observed eastern box turtle.
   3. Special care shall be taken by the Contractor during early morning and evening hours and on overcast rainy days so that possible basking or foraging turtles are not harmed by construction activities.
10. **Reporting**
    1. Following completion of the construction project, Davison Environmental will provide a summary report to the Connecticut Siting Council and CTDEEP documenting the monitoring and maintenance of the barrier fence and erosion control measures.
    2. Any observations of eastern box turtle or other state listed species will be reported to CTDEEP by Davison Environmental with photo-documentation (if possible) and with specific information on the location and disposition of the animal.

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