



**CONNECTICUT DEPARTMENT OF  
ENERGY & ENVIRONMENTAL PROTECTION  
OFFICE OF ENVIRONMENTAL REVIEW  
79 ELM STREET, HARTFORD, CT 06106-5127**

---

**To:** Binu Chandy - Project Manager  
DECD - Office of Financial & Technical Review, 505 Hudson Street, Hartford, CT

**From:** David J. Fox - Senior Environmental Analyst      **Telephone:** 860-424-4111

**Date:** October 20, 2016      **E-Mail:** [david.fox@ct.gov](mailto:david.fox@ct.gov)

**Subject:** Dixwell Q House Community Center, New Haven

---

The Department of Energy and Environmental Protection (DEEP) has reviewed the Notice of Scoping for proposed construction of a new Dixwell Q House Community Center in New Haven. The following commentary is submitted for your consideration.

A majority of the proposed project site is presently developed with a building and parking lot. The Natural Resources Conservation Service's Soil Survey depicts the entire site as urban land. It does not appear that there are any areas which would be regulated as wetlands or watercourses as defined by section 22a-38 (15) and (16) of the Connecticut General Statutes (CGS), respectively. The site is not within Connecticut's coastal boundary as defined by section 22a-94 of the CGS nor within the 100-year or 500-year flood zones on the community's Flood Insurance Rate Map.

The Department strongly supports the use of low impact development (LID) practices such as water quality swales and rain gardens for infiltration of stormwater on site. Key strategies for effective LID include: managing stormwater close to where precipitation falls; infiltrating, filtering, and storing as much stormwater as feasible; managing stormwater at multiple locations throughout the landscape; conserving and restoring natural vegetation and soils; preserving open space and minimizing land disturbance; designing the site to minimize impervious surfaces; and providing for maintenance and education. Water quality and quantity benefits are maximized when multiple techniques are grouped together. Consequently, we typically recommend the utilization of one, or a combination of, the following measures:

- the use of pervious pavement or grid pavers (which are very compatible for parking lot and fire lane applications), or impervious pavement without curbs or with notched curbs to direct runoff to properly designed and installed infiltration areas,
- the use of vegetated swales, tree box filters, and/or infiltration islands to infiltrate and treat stormwater runoff (from building roofs, roads and parking lots),
- the minimization of access road widths and parking lot areas to the maximum extent possible to reduce the area of impervious surface,
- if soil conditions permit, the use of dry wells to manage runoff from the building roofs,
- the use of vegetated roofs (green roofs) to reduce the runoff from buildings,
- incorporation of proper physical barriers or operational procedures to prevent release of pollutants from special activity areas (e.g. loading docks, maintenance and service areas, dumpsters),

- the installation of rainwater harvesting systems to capture stormwater from building roofs for the purpose of reuse for irrigation, and
- providing for pollution prevention measures to reduce the introduction of pollutants to the environment.

The effectiveness of various LID techniques that rely on infiltration depends on the soil types present at the site. According to the Natural Resources Conservation Service's Soil Web Survey, the soils at the property consist of urban land. These soils are unrated in their suitability for various stormwater management practices. However, infiltration practices may be suitable at this site. Soil mapping consists of a minimum 3 acres map unit and soils may vary substantially within each mapping unit. Test pits should be dug in areas planned for infiltration practices to verify soil suitability and/or limitations. Planning should insure that areas to be used for infiltration are not compacted during the construction process by vehicles or machinery. The siting of areas for infiltration must also consider any existing soil or groundwater contamination. Even if infiltration is limited at a site, it is still possible to implement LID practices such as green roofs on buildings or the use of cisterns to capture and reuse rainwater.

The Department has compiled a listing of web resources with information about watershed management, green infrastructure and LID best management practices. It may be found on-line at: [LID Resources](#).

Stormwater discharges from construction sites where one or more acres are to be disturbed, regardless of project phasing, require an NPDES permit from the Permitting & Enforcement Division. The *General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities* (DEEP-WPED-GP-015) will cover these discharges. The construction stormwater general permit dictates separate compliance procedures for Locally Approvable projects and Locally Exempt projects (as defined in the permit). Locally Exempt construction projects disturbing over 1 acre must submit a registration form and Stormwater Pollution Control Plan (SWPCP) to the Department. Locally Approvable construction projects with a total disturbed area of one to five acres are not required to register with the Department provided the development plan has been approved by a municipal land use agency and adheres to local erosion and sediment control land use regulations and the *CT Guidelines for Soil Erosion and Sediment Control*. Locally Approvable construction projects with a total disturbed area of five or more acres must submit a registration form to the Department prior to the initiation of construction. This registration shall include a certification by a Qualified Professional who designed the project and a certification by a Qualified Professional or regional Conservation District who reviewed the SWPCP and deemed it consistent with the requirements of the general permit. The SWPCP for Locally Approvable projects is not required to be submitted to the Department unless requested. The SWPCP must include measures such as erosion and sediment controls and post construction stormwater management. A goal of 80 percent removal of total suspended solids from the stormwater discharge shall be used in designing and installing post-construction stormwater management measures. The general permit also requires that post-construction control measures incorporate runoff reduction practices, such as LID techniques, to meet performance standards specified in the permit. For further information, contact the division at 860-424-3018. The construction stormwater general permit registrations can now be filed electronically through DEEP's e-Filing system known as ezFile. Additional information can be found on-line at: [Construction Stormwater GP](#).

The Natural Diversity Data Base, maintained by DEEP, contains no records of extant populations of Federally listed endangered or threatened species or species listed by the State, pursuant to section 26-306 of the CGS, as endangered, threatened or special concern in the project area. This information is not the result of comprehensive or site-specific field investigations. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern as well as enhance existing data. Such new information is incorporated into the Data Base as it becomes available. Also be advised that this is a preliminary review and not a final determination. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to DEEP for the proposed site.

Development plans in urban areas that entail soil excavation should include a protocol for sampling and analysis of potentially contaminated soil. Soil with contaminant levels that exceed the applicable criteria of the Remediation Standard Regulations, that is not hazardous waste, is considered to be special waste. The disposal of special wastes, as defined in section 22a-209-1 of the Regulations of Connecticut State Agencies (RCSA), requires written authorization from the Waste Engineering and Enforcement Division prior to delivery to any solid waste disposal facility in Connecticut. If clean fill is to be segregated from waste material, there must be strict adherence to the definition of clean fill, as provided in Section 22a-209-1 of the RCSA. In addition, the regulations prohibit the disposal of more than 10 cubic yards of stumps, brush or woodchips on the site, either buried or on the surface. A fact sheet regarding disposal of special wastes and the authorization application form may be obtained at: [Special Waste Fact Sheet](#).

The Waste Engineering & Enforcement Division has issued a *General Permit for Contaminated Soil and/or Sediment Management (Staging & Transfer)* (DEP-SW-GP-001). It establishes a uniform set of environmentally protective management measures for stockpiling soils when they are generated during construction or utility installation projects where contaminated soils are typically managed (held temporarily during characterization procedures to determine a final disposition). Temporary storage of less than 1000 cubic yards of contaminated soils (which are not hazardous waste) at the excavation site does not require registration, provided that activities are conducted in accordance with the applicable conditions of the general permit. Registration is required for on-site storage of more than 1000 cubic yards for more than 45 days or transfer of more than 10 cubic yards off-site. A fact sheet describing the general permit, a copy of the general permit and registration forms are available on-line at: [Soil Management GP](#).

In keeping with the Department's interest in furthering the use of alternate fuels for transportation purposes, we recommend that Level 2 electric vehicle charging stations be included at 3% of the parking spaces in the project design. Increasing the availability of public charging stations will facilitate the introduction of the electric vehicle technology into the state and serve to alleviate the present energy dependence on petroleum.

The following standard comments regarding mitigation of air quality impacts during construction should be observed during future planning and implementation of the project.

For large construction projects, the Department typically encourages the use of newer off-road construction equipment that meets the latest EPA or California Air Resources Board (CARB) standards. If that newer equipment cannot be used,

equipment with the best available controls on diesel emissions including retrofitting with diesel oxidation catalysts or particulate filters in addition to the use of ultra-low sulfur fuel would be the second choice that can be effective in reducing exhaust emissions. The use of newer equipment that meets EPA standards would obviate the need for retrofits.

The Department also encourages the use of newer on-road vehicles that meet either the latest EPA or California Air Resources Board (CARB) standards for construction projects. These on-road vehicles include dump trucks, fuel delivery trucks and other vehicles typically found at construction sites. On-road vehicles older than the 2007-model year typically should be retrofitted with diesel oxidation catalysts or diesel particulate filters for projects. Again, the use of newer vehicles that meet EPA standards would eliminate the need for retrofits.

Additionally, Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies (RCSA) limits the idling of mobile sources to 3 minutes. This regulation applies to most vehicles such as trucks and other diesel engine-powered vehicles commonly used on construction sites. Adhering to the regulation will reduce unnecessary idling at truck staging zones, delivery or truck dumping areas and further reduce on-road and construction equipment emissions. Use of posted signs indicating the three-minute idling limit is recommended. It should be noted that only DEEP can enforce Section 22a-174-18(b)(3)(C) of the RCSA. Therefore, it is recommended that the project sponsor include language similar to the anti-idling regulations in the contract specifications for construction in order to allow them to enforce idling restrictions at the project site without the involvement of the Department.

The following standard comments regarding building demolition projects should be observed, as applicable, during future planning and implementation of the project. Fact sheets providing additional information concerning environmental, health and safety requirements applicable to building renovation and demolition projects have been developed by the Waste Engineering & Enforcement Division. To obtain copies, call the division at 860-424-3023. This information is also available on-line at: [Health & Safety Requirements](#).

Prior to the demolition of any commercial, industrial or public buildings or buildings containing five or more residential units, they must be inspected for asbestos-containing materials (ACM) and any such materials must be removed by asbestos abatement contractors that are licensed by the Department of Public Health (DPH). Additional information on asbestos contractors may be found at: [Asbestos Contractors](#). ACM must be properly containerized and labeled, and must be shipped off-site using an asbestos manifest. [Written notice](#) must be submitted to the DPH ten working days prior to the demolition of any structure in accordance with Section 19a-332a-3 of the Regulations of Connecticut State Agencies. For further information, contact DPH at 860-509-7367. Additional information concerning regulation of asbestos may be found on the DPH website at: [Asbestos Program](#).

Asbestos-containing material is regulated as a “special waste” in Connecticut, and may not be disposed of with regular construction and demolition waste. Instead, it

may only be disposed at a facilities that are specifically authorized to accept ACM. Currently, there are only two facilities that are authorized to accept asbestos-containing material in Connecticut: Red Technologies in Portland and Manchester Landfill in Manchester (which can only accept non-friable types of asbestos-containing materials). Although the disposal of asbestos-containing material is typically arranged for by the licensed asbestos abatement contractor, project proponents should ensure that the contractor disposes of all such materials at properly-licensed facilities. For further information, contact the Waste Engineering & Enforcement Division at 860-424-3023. A fact sheet regarding disposal of special wastes and the authorization application form may be obtained at: [Special Waste Fact Sheet](#).

Demolition debris may also include materials that contain polychlorinated biphenyls (PCBs). Such materials can include transformers, capacitors, fluorescent light ballast and other oil-containing equipment, and in certain building materials (i.e., paint, roofing, flooring, insulation, etc.). In recent years, EPA has also learned that caulk containing potentially harmful polychlorinated biphenyls (PCBs) was used around windows, door frames, masonry columns and other masonry building materials in many buildings starting in 1929 with increased popularity in the 1950s through the 1970s, including schools, large scale apartment complexes and public buildings. In general, these types of buildings built after 1978 do not contain PCBs in caulk. In 2009, EPA announced new guidance about managing PCBs in caulk and tools to help minimize possible exposure. The guidance can be found at: [PCBs in Caulk](#). Where schools or other buildings were constructed or renovated prior to 1978, EPA and DEEP recommend that PCB-containing caulk removal be scheduled during planned renovations, repairs (when replacing windows, doors, roofs, ventilation, etc.) and demolition projects, whenever possible. However, the continued use of such PCB materials is prohibited and, where it is identified, it must be addressed. EPA recommends testing caulk that is going to be removed as the first step in order to determine what protections are needed during removal. Where testing confirms the presence of PCBs, it is critically important to ensure that they are not released to air during replacement or repair of caulk in affected buildings. Many such PCB removal projects will need to include sampling of the substrate and soil, as well as require plans to be approved by EPA in coordination with DEEP. Further information concerning the DEEP PCB Program can be found on-line at: [DEEP PCB Program](#).

In addition to asbestos and PCBs, demolition debris may also be contaminated with lead-based paint, chemical residues, or other materials that require special disposal. For more information on these materials, see the [DEEP's Renovation and Demolition Web Page](#). Additional information concerning disposal of demolition debris is available in the DEEP's [Demolition Debris Web Page](#).

Deconstruction, an environmentally-friendly alternative to demolition, should be utilized in order to salvage as many of the reusable materials as possible, diverting them from the waste stream. Salvaged items typically include doors, windows, cabinets, lighting and plumbing fixtures, framing lumber, roofing materials, and

flooring. Additional information concerning deconstruction can be found on-line at: [Deconstruction](#).

Demolition waste that is not contaminated with asbestos, PCBs, or other materials that require special handling is subject to Connecticut's [solid waste statutes and regulations](#), and must be reused, recycled, or disposed of accordingly. Construction and demolition debris should be segregated on-site and reused or recycled to the greatest extent possible. Waste management plans for construction, renovation or demolition projects are encouraged to help meet the State's reuse and recycling goals. Connecticut's [Comprehensive Materials Management Strategy](#) outlines a goal of 60% recovery rate for municipal solid waste by the year 2024. Part of this effort includes increasing the amount of construction and demolition materials recovered for reuse and recycling in Connecticut. It is recommended that contracts be awarded only to those companies who present a sufficiently detailed construction/demolition waste management plan for reuse/recycling. Additional information concerning construction and demolition material management and waste management plans can be found on the DEEP's [C&D Material Management](#) and [C&D Waste Management Plan](#) web pages.

One way that certain types of construction and demolition waste can be reused is as clean fill. Clean fill is defined in section 22a-209-1 of the Regulations of Connecticut State Agencies (RCSA) and includes only natural soil, rock, brick, ceramics, concrete and asphalt paving fragments. Clean fill can be used on site or at appropriate off-site locations. Clean fill does not include uncured asphalt, demolition waste containing other than brick or rubble, contaminated demolition wastes (e.g. contaminated with oil or lead paint), tree stumps, or any kind of contaminated soils. Land-clearing debris and waste other than clean fill resulting from demolition activities is considered bulky waste, also defined in section 22a-209-1 of the RCSA. Bulky waste is classified as special waste and must be disposed of at a permitted landfill or other solid waste processing facility pursuant to section 22a-208c of the Connecticut General Statutes and section 22a-209-2 of the RCSA. A fact sheet regarding disposal of special wastes and the authorization application form may be obtained at: [Special Waste Fact Sheet](#).

Thank you for the opportunity to review this proposal. If you have any questions concerning these comments, please contact me.

cc: Robert Hannon, DEEP/OPPD  
Lou Corsino, DEEP/APSD