

NEW HAVEN CITY PLAN COMMISSION INLAND WETLANDS REVIEW AND SITE PLAN REVIEW

RE: 200 CONRAD DRIVE, Inland Wetlands Review and Site Plan Review including Erosion and Sediment Control Review for Filling and Grading Activity on the Yale Golf Course in a RS-2 Zone (Owner/Applicant: Yale University).
REPORT: 1480-06
ACTION: Approval with Conditions

CONDITIONS OF APPROVAL

1. Pursuant to State Statute, this site plan soil erosion and sediment control plan and inland wetlands approval is valid for a period of five (5) years following the date of decision, until June 19, 2018. Upon petition of the applicant, the Commission may, at its discretion, grant extensions totaling no more than an additional five (5) years to complete all work connected to the original approval.
2. The applicant shall record on the City land records an original copy of this Inland Wetland and Site Plan Review report (to be provided by the City Plan Department) and shall furnish written evidence to the City Plan Department that the document has been so recorded (showing volume and page number), prior to City Plan signoff on final plans and prior to initiation of site work.
3. Final haul route and any changes thereto during the construction period shall be reviewed and approved by the Department of Transportation, Traffic and Parking.
4. Signoff on final plans by the City Engineer, Department of Transportation, Traffic and Parking and City Plan Department in that order shall be obtained prior to initiation of site work.
5. Any proposed work within City right-of-way will require separate permits.
6. Upon completion, as-built site plan in accord with City requirements shall be filed with City Plan Department. Site Plan shall be submitted in both mylar and digital format [TIFF file based on the State Plane Coordinates (NAD1983)]. Provide version of AutoCAD with submission.

Submission: Development Permit application 05/15/13, \$270 fee; Drainage Assessment and Analysis associated with adjacent properties along Curtis Drive by URS 05/16/13, Wetland/Watercourse Delineation and evaluation Storm Drainage Improvements by Haley & Aldrich 05/13. Plans by URS Corp 5/16/13:sed 7/12/10: Title Sheet, General Notes, Legend & Abbreviations, Existing Conditions Plan, Site Plan – North& South, Site Materials Plan, Curtis Drive Drainage Improvements & Typical Sections, Site Storm Drainage Details, Soil Erosion & Sediment Control Details, Misc Site Details, Haul Route.

PROJECT SUMMARY:

Project: Deposit of soil/fill on Yale Golf Course to address drainage/flooding issues
Address: 200 Conrad Drive
Site Size: 12,527,420.4 SF = 287.59 acres including wetlands and watercourses (overall site)
Zone: RS-2
Financing: Private
Project Cost: approximately \$1 million
Land Owner: Yale University **Phone:** 203-432-6372
Applicant: John Kaufhold, Dir. Finance & Administration **Phone:** 203-432-6372
Agent: Robert Corbett, Dir Major Capital Projects **Phone:** 203-432-7385
Site Engineer: URS (Peter Sammis) **Phone:** 860-529-8882

Soil Scientist: Haley & Aldrich, Inc. (Chris Harriman)

Phone: 860-282-9400

BACKGROUND

Yale University proposes to beneficially reuse approximately 50,000 cubic yards of clean soil from Yale development projects, namely the two new residential colleges on Prospect Street, by depositing it on a portion of the Yale Golf Course in the western portion of the City. The purpose of the project is to find a location for the soil and to place it in a location without exorbitant transport costs, while addressing flooding and drainage problems on Curtis Drive, a residential street north of the Golf Course. The overall Golf Course is bounded by Route 15 (Merritt Parkway) to the west, towns of West Haven and Orange to the south, and residential properties on Fountain Street, Long Hill Terrace, Curtis Drive, Conrad Drive and Stevenson Road to the north and east.

The Golf Course was first developed in the 1920's on formerly privately owned land which included wetlands and watercourses. The residential neighborhood including Curtis Drive was developed on adjacent lands and wetlands in the 1950's where formerly the Hygienic Ice Company on Fountain Street had an ice pond that was drained in the 1940's and prepared as a development site. Since that time flooding and drainage problems have developed which Yale University now proposes to attempt to improve with the current project. The City has made attempts previously to correct the drainage problems but without complete success.

Proposed Activity: The project area includes the portion of the golf course to the north and south of the entry drive from the terminus of Conrad Drive. It includes first the restoration of an existing swale and culvert system location along flood prone portions of the property boundary between Yale University property and Curtis Drive residential properties. The swale will be cleaned of accumulated sediment and debris, slightly deepened and lined with riprap. A new rip rap splash pad will be installed at one of the existing storm sewer inlets. A soil berm and curtain drain will be constructed along portions of the property boundary. The project includes clearing of a 5 acre wooded area and construction of a 52,800 SF detention basin and overflow outlet structure, a new cart path, approximately 1,759 linear feet of storm sewer including manholes, approximately 250 LF of riprap swale improvements, approximately 475 LF of soil berm, and approximately 350 LF of curtain drain.

An existing hiking trail through the site will be relocated so that it will remain a recreational feature of the area.

Transport of Soil from downtown Yale sites: Haley and Aldrich will be monitoring both excavation activities at the residential college site and filling activities at the golf course. Only clean fill will be transported to the Golf Course. The **haul route** to the site from the new residential colleges site will be Prospect Street to College Street, to Grove Street, to Tower Parkway, to Whalley Avenue, to Fountain Street, to Vista Terrace, to Marvelwood Drive, to Ray Road, to Conrad Drive. An alternate route in the immediate vicinity of the Golf Course is Lakeview Terrace to Fountain Street. Haul route and alternates, including hours of operation, shall be reviewed and approved by the Department of Transportation, Traffic and Parking.

Soil Erosion and Sediment Control Plan: 50,000 cubic yards of material will be added to the Golf Course site which will mean 10-12 trucks per day during the project. Two anti tracking pads will be installed on either side of the entry drive as entrances to the two areas where activity will occur. Silt fencing and haybales will be installed down-gradient of the soil deposit on the practice range on the east side of the drive. Silt fencing will also be installed along the rear yards of residential properties on a segment of 124 through 210 Curtis Drive. A City-owned property adjacent to 174 Curtis Drive may be used for minimal construction access during the drainage improvement project if necessary and timber mats will be laid on the property to prevent any damage to wetlands there. Following final grading of the filled areas and detention basin,

disturbed areas will be seeded with appropriate conservation mix to provide a quick stabilization effect. Chris Harriman of Haley and Aldrich is named as the individual responsible for monitoring the site to assure there is no soil runoff entering the City's storm sewer system and that no materials are being tracked off site. He is also responsible for assuring there is no dust gravitation off site by controlling dust generated by vehicles and equipment for the duration of the project. All SESC measures are required to be designed and constructed in accordance with the latest Standards and Specifications of the *Connecticut Guidelines for Soil Erosion and Sediment Control*.

Scott Ramsay, CGCS, of Yale University is named as the on site monitor on a daily basis who shall be responsible with Mr. Harriman for determining the appropriate response, should unforeseen erosion or sedimentation problems arise. They are fully responsible for insuring that SESC measures are properly installed, maintained and inspected according to the SESC Plan. Should soil erosion problems develop (either by wind or water) following issuance of permits for site work, the contractor is responsible for notifying the City Engineer within twenty-four hours of any such situation with a plan for immediate corrective action.

Other permits required: Dept of Army Corps General Permit State of CT-Category 1 Activity; Application in progress. CTDEEP General Permit for Stormwater and dewatering Wastewaters from Construction activities: Application in progress.

Project Timetable: The project will be initiated in late 2013 and be completed in approximately two years by late 2015.

INLAND WETLANDS AND WATERCOURSES REVIEW

Determination of Classification: The Commission has reviewed the options for classification, as stated in Sections 3 of the City's Inland Wetland and Watercourses Regulations, and concurs with the applicant's determination that the wetlands application qualifies as a Class B Application. The activity proposed will not have substantial adverse effect on the regulated area or any other part of the inland wetlands and watercourses system. The current Inland Wetlands application is deemed complete and formally received by the Commission at its meeting of June 19, 2013. Due to proximity to residential areas and potential local interest, the Commission has determined it will hold a public hearing on the Class B application. Owners of record of properties in the vicinity of the drainage work have been notified by mail of the time and place of the hearing within 7 days of the hearing date.

Application Evaluation Criteria: In reviewing a Class B or C Application, the Commission must consider the following environmental impact criteria in its evaluation, as stated in Sections 7.2 and 7.3 of the City's Inland Wetlands and Watercourses Regulations:

- The ability of the regulated area to continue to absorb, store or purify water or to prevent flooding.
- Increased erosion problems resulting from changes in grades, ground cover, or drainage features.
- The extent of additional siltation or leaching and its effect on water quality and aquatic life.
- Changes in the volume, temperature, or course of a waterway and their resulting effects on plant, animal and aquatic life.
- Natural, historic, or economic features that might be destroyed, rendered inaccessible or otherwise affected by the proposed activity.
- Changes in suitability of the area for recreational and aesthetic enjoyment.
- Existing encroachment lines, flood plain and stream belt zoning and requirements for dam construction.
- Any change in the water effecting aquatic organisms or other wildlife, water supply and quality, or recreational and aesthetic enjoyment.
- The existing and desired quality and use of the water in and near the affected area.
- Reports from other City agencies and commissions not limited to the Environmental Advisory Council, Building Official, and City Engineer.

- The importance of the regulated area as a potential surface or ground water supply, a recharge area or purifier or surface or ground waters, a part of the natural drainage system for the watershed, a natural wildlife feeding or breeding area, its existing and potential use for recreational purposes, existence of rare or unusual concentrations of botanical species, availability of other open spaces in the surrounding area, or its value for flood control.

The Commission must consider the following **additional** criteria:

- Any evidence and testimony presented at a public hearing, should one be held.
- Alternatives which might enhance environmental quality or have a less detrimental effect, without increasing basic project costs.
- Short versus long-term impacts.
- Potential loss of irrevocable resources or property impairment.
- Suitability of action for area.
- Mitigation measures which may be imposed as conditions.

INLAND WETLANDS PLANNING CONSIDERATIONS

Wetlands delineation: Haley & Aldrich performed a field survey between fall 2011 and spring 2013 of the wetlands/watercourse corridors located between Curtis Drive properties and upland areas of the Golf Course. Only the southern portions of the wetlands/watercourses in the study area (i.e., the portion of the wetland boundary that is located on the Yale property and proximate to proposed drainage improvements) were flagged and surveyed in the field. The northern portions of the wetlands/watercourses were approximately located based on topography and field observations. Wetland soil types observed within low-lying portions of the study area include *Walpole sandy loam*, *Adrian muck*, and *Aquents* (i.e., wet areas that have been filled or excavated). Wetland vegetation includes among others: red maple, spice bush, skunk cabbage, sensitive fern, and cinnamon fern. Wetland areas also show evidence of standing water including drift lines and buttressed roots. Hand dug test holes encountered organic soils ranging from approximately 9 to over 36 inches thick. No vernal pools were observed proximate to planned drainage improvement areas.

Upslope from the low-lying portions of the study area, wetlands transition to a rocky seasonal watercourse and man-made drainage way to the southeast and a perennial watercourse to the southwest. The southeastern watercourse appears to be primarily associated with seasonal groundwater seepage and also acts as a drainage corridor for storm-related water from the upper portion of the associated watershed to flow quickly to the low-lying portions of the study area. The southwestern watercourse is a much more significant watercourse as it drains portions of two watersheds. Stormwater is directed into three existing City storm water culverts located approximately along the Yale/residential property boundary (Refer to Haley and Aldrich's "*Wetlands/Watercourse Delineation and Evaluation; Storm Water Drainage Improvements, The Course at Yale, New Haven, CT*" for further details).

The proposed project involves three major components as follows:

1. Beneficial reuse of approximately 50,000 CY of imported clean soil from other planned Yale construction projects. Soil will be chemically tested and visually monitored at the point of origin to ensure that only clean material is brought to the site. The regulated area will be protected by soil and erosion controls until construction-impacted areas have been stabilized.
2. Construction of a new upland storm water detention area (i.e., a Water Quality Basin for low flow storm-related groundwater recharge and a larger Detention Basin for up to 100-year storm events) to reduce down gradient storm water impacts to the Curtis Drive properties without impacting groundwater-related recharge to wetlands/watercourses. Storm water will be diverted from a man-made drainage swale to an underground culvert that discharges into an aboveground detention area. With the exception of the culvert

entrance and two basin discharges that encroach into the regulated area 50 foot buffer, this construction activity will be entirely outside the regulated area.

3. Restoration and enhancement of an existing drainage culvert system located along the Yale/Curtis Drive residential property boundary. This activity will include the restoration of an existing drainage swale along with the installation of a soil berm and shallow curtain drain. These activities will require excavation and filling activities within wetlands/watercourses.

Required Findings for a Class B Application:

The Commission must make the following findings for a Class B Application:

1. There is no preferable location on the subject parcel or no other available location could reasonably be required;
2. No further technical improvements in the plan or safeguards for its implementation are possible, or taking into account the resources of the applicant, could reasonably be required; and
3. The activity and its conduct will result in little if any reduction of the natural capacity of the wetlands or watercourses to support desirable biological life, prevent flooding, supply water, facilitate drainage, and provide recreation and open space.

The proposed regulated activity is designed to mitigate historic land use activities. In addition, residential property owners along Curtis Drive have expressed concern regarding flooding of their properties during and following storm events.

The positive outcomes of the proposed project are as follows:

- Storm water related erosion of wetlands/watercourses and flooding of down gradient residential properties will be mitigated through the creation of an upland detention basin. The detention basin will be constructed from the clean soil mentioned above. The detention basin will allow storm water to recharge to groundwater up gradient of the regulated area, thus allowing the regulated area to receive groundwater recharge.
- Flooding of down gradient residential properties will be further mitigated by the restoration of an existing drainage swale and the installation of a soil berm and shallow curtain drain located along the residential/Yale property boundary.
- The beneficial reuse of approximately 50,000 CY of imported clean soil from other planned Yale construction projects. Soil will be chemically tested and visually monitored at the point of origin to ensure that only clean material is brought to the site. The regulated area will be protected by soil erosion and sedimentation controls until construction-impacted areas have been stabilized.

INLAND WETLAND FINDINGS

The Commission has considered all criteria and believes that execution of the project will have no negative impact on the regulated area. There will be no loss of wetlands as a result of activity. The City Plan Commission, acting as the Inland Wetlands Commission, finds that there is no preferable location of the proposed activity on the site, nor are there further technical improvements required in the plans. The proposed construction will result in no reduction of the natural capacity of the watercourse to support desirable biological life, prevent flooding, supply water, and facilitate drainage. The proposed activity will increase the current flood storage capacity and will reduce chronic flooding of residential properties. All of the required findings have been satisfied (refer to Haley & Aldrich Wetland Letter).

The Commission therefore approves the Inland Wetlands Application with the Conditions on Page 1.

SITE PLAN REVIEW

Plans have been reviewed by the Site Plan Review team with representatives from the Departments of City Plan, City Engineer, Building, Disabilities Services, and Transportation, Traffic and Parking and have been found to meet the requirements of City ordinances, Regulations and standard details.

SITE PLAN ACTION

The Commission finds the Site Plan generally in accordance with the applicable sections of the Zoning Ordinance, and hereby grants an approval with Conditions as noted on Page 1.

ADOPTED: June 19, 2013
Edward Mattison
Chair

ATTEST: 
Karyn M. Gilvarg, AIA
Executive Director