

NEW HAVEN CITY PLAN COMMISSION SITE PLAN REVIEW

RE: 165, 223, 243, 285, & 301 PROSPECT STREET, 320, 340, & 360 EDWARDS STREET, 180, 256, & 260 WHITNEY AVENUE, AND 21 SACHEM STREET.

MBLUs: 245 0363 00100; 245 0363 00200; 245 0363 00201; 245 0363 00300; 245 0363 00400; 245 0363 00500; 245 0363 00501; 245 0363 00600; 245 0363 00800; 245 0363 00900; 245 0363 01100; 245 0363 01200; 245 0363 01201; 245 0363 01300

(Owner/Applicant: Yale University; **Agent:** Stephen Brown, Yale University)

Site Plan Review and Class C Soil Erosion and Sediment Control Review for the construction of a new chemical safety building and associated site improvements on the northwest portion of Yale University's Science Hill block, in the RH-2 Zone (includes PDU 105). (Block bounded by Prospect Street, Edwards Street, Whitney Avenue and Schem Street)

REPORT: 1629-06

ACTION: Approval with Conditions

STANDARD CONDITIONS OF APPROVAL

1. Pursuant to State Statute, this site plan and soil erosion and sediment control plan approval is valid for a period of five (5) years following the date of decision, until March 15, 2028. 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 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 for building permits. A digital copy of the recorded report shall be provided to staff (.pdf).
3. Upon approval by the City Plan Commission, provide compiled digital copies of all application materials, including drawing sets and reports, to staff for filing (.pdf files) prior to City Plan signoff for building permits.
4. Signoff on final plans by the Greater New Haven Water Pollution Control Authority; City Engineer; Department of Transportation, Traffic, and Parking; City Plan Department; and Fire Marshal in that order shall be obtained prior to initiation of site work or issuance of building permit.
5. Construction Operations Plan/Site Logistics Plan, including any traffic lane/sidewalk closures, temporary walkways, detours, signage, haul routes to & from site, and construction worker parking plan shall be submitted to the Department of Transportation, Traffic and Parking for review and approval to prior to City Plan signoff on final plans for building permit.
6. A site bond will be required in conformity with Connecticut General Statutes Section 8-3(g). Bond, or other such financial instrument, shall be provided to the City Plan Department, in an amount equal to the estimated cost of implementation of erosion and sediment controls, plus 10 percent, prior to City Plan final sign-off on plans for building permit.
7. Any proposed work within City right-of-way will require separate permits.
8. Any sidewalks or curbs on the perimeter of the project deemed to be in damaged condition shall be replaced or repaired in accord with City of New Haven standard details.
9. Any proposed removals of street trees must be coordinated with the Department of Parks, Recreation, and Trees prior to sign-off for building permits.
10. Following completion of construction, any catch basins in the public right-of-way impacted by the project shall be cleaned, prior to issuance of Certificate of Occupancy.
11. Within 10 business days of City Plan Commission approval, the applicant shall submit a digital (.pdf) and hard copy of the final approved plan set (including all revisions) to the City Plan Department.

12. As-built Survey shall be filed with City Plan Department, with a copy to the City Engineer, prior to issuance of Certificate of Occupancy. Site Plan shall be submitted in mylar and digital form (.pdf).

Submission: SPR Application Packet including DATA, WORKSHEET, SITE, SESC, and CSPR forms. NARRATIVE attached. Application fee: \$410. Received February 16, 2023.

- Plan set, 27 sheets, dated February 13, 2023, revised February 27, 2023 and March 9, 2023
- Stormwater report, 272 sheets, dated February 13, 2023, revised February 27, 2023
- Reflective Heat Analysis, 1 sheet, dated March 8, 2023
- Certification of abutters noticing, 4 sheets, dated March 3, 2023

PROJECT SUMMARY:

Project: Yale Chemical Safety Building

Address: 165, 223, 243, 285, & 301 Prospect Street, 320, 340, & 360 Edwards Street, 180, 256, & 260 Whitney Avenue, and 21 Sachem Street.

Site Size: 36.18 acres

Building size: 12,930 SF

Zone: RH-2, PDU 105

Parking: No parking is required for this project per Section 12(b)(1)(g) of the Zoning Ordinance.

Owner/Applicant: Yale University

Phone: 203-432-9878

Agent: Stephen Brown, Yale University

Phone: 203-432-6721

Site Engineer: Langan Engineering

Phone: 203-562-5771

BACKGROUND

Previous CPC Actions:

CPC 1564-02: Site Plan Review for interior renovations to the existing Kline Tower, the addition of two new vestibules on the ground floor, conversion of the 13th floor mechanical space to academic space and the enclosure of the existing penthouse and roof to create an additional floor of academic space. Approved December 18, 2019.

CPC 1498-A: Core Addition to Kline Chem Lab (KCL). Approved July 18, 2012.

CPC 1485-01: Site Plan Review for underground vault for Sterling Chemistry Laboratory. Approved November 20, 2013.

CPC 1498-03: Site Plan Review for Sterling Chemistry Lab Renovation. Approved February 19, 2014.

CPC 1517-03: Site Plan Review for demolition of existing buildings and construction of a 280,300 SF Yale Science Building in an RH-2 zone. Denied Without Prejudice May 19, 2016.

CPC 1522-01: Site Plan Review for demolition of existing buildings and construction of a 280,300 SF Yale Science Building in an RH-2 zone. Approved September 21, 2016.

CPC 1554-02: Site Plan Review and Soil Erosion and Sediment Control Review for renovations to the Yale Peabody Museum of Natural History. Approved February 20, 2019.

Zoning:

The Site Plan as submitted meets the requirements of the New Haven Zoning Ordinance for the RH-2 zone and PDU 105.

Site description/existing conditions:

The project site is located on a 36.18-acre zoning lot that contains several existing buildings in the center of Yale's Science Hill bounded by Prospect Street to the west, Edwards Street to the north, Whitney Avenue to the east, and Sachem Street to the south. The area of work, shown on the plans, includes three buildings on Edwards Street and the Class of 1954 Chemistry Research Building. The remainder of the site includes surface parking, pedestrian walkways, driveways, and landscaped areas.

Proposed activity:

This project involves the construction of a new chemical safety building and associated site improvements on the northwest portion of Yale University's Science Hill block. Following completion of construction and the commencement of operation of the new building, the existing chemical safety building on Science Hill will be removed. The chemical safety building is a part of the University's science and safety programs. The building is used to store chemicals used in the University's science programs and for the management of wastes generated in those programs. The construction of the new building is an enabling project to the development of a new science building, additions to the existing Wright Laboratory, and associated improvements which will be located, in part, on the site of the existing chemical safety building. These proposed projects are currently in the design phase and will be the subject of future applications which will also address the removal of the existing chemical safety building. This application is only related to the construction of the new chemical safety building and associated improvements.

Motor vehicle circulation/parking/traffic:

Circulation

Vehicular access to the new building will be from Prospect Street via a proposed new curb cut. Construction of the curb cut will require the elimination of five on-street parking spaces on Prospect Street.

Parking

No parking is required for this project under Section 12(b)(1)(g) of the Zoning Ordinance since the project will not expand the University's existing student body, no faculty or employees will be added, and no new places of assembly will be created. On February 21, 2023 the Board of Alders adopted a resolution certifying that no amendment to the Yale University Central/Science Campus Overall Parking Plan is required for the application for development permit/site plan review pertaining to the construction of a new chemical safety building on the Yale University Science Hill block. There is existing surface parking, including accessible parking, directly to the north and northeast of the building.

Bicycle parking:

A bicycle rack with capacity for 8 bicycles will be installed at the southwest corner of the new building along the proposed walkway.

Trash removal: The existing Chemical Safety Building utilizes the adjacent CRB loading dock for trash/recycling processing. The container collection vehicles enter the existing apron off Edwards Street and exit back onto Edwards Street. The completion of the new CSB will not change the trash/recycling procedures. The new CSB trash/recycling will be taken internally (via internal corridor) to the existing CRB dock and collected in the same manner as the existing condition. The anticipated volume of trash and recycling is expected to stay the same as the current condition as well.

Signage: No new signage proposed at this time. All signage must meet zoning ordinance requirements.

Sec. 58 Soil Erosion and Sedimentation Control:

- Class A (minimal impact)
- Class B (significant impact)
- Class C (significant public effect, hearing required)

Cubic Yards (cy) of soil to be moved, removed or added: 28,000 CY

Start Date: Fall 2023

Completion Date: Spring 2025

Responsible Party for Site Monitoring:

Timothy Onderko, PE, Langan Engineering & Environmental Services, Inc
203-562-5771 tonderko@langan.com

On site monitor:
Christian Meyer, Turner Construction Company
203-627-4494 cmeyer@tcco.com

This individual is responsible for monitoring the site to assure there is no soil or runoff entering City catch basins or the storm sewer system. Other responsibilities include:

- monitoring soil erosion and sediment control measures on a daily basis;
- assuring there is no dust gravitation off site by controlling dust generated by vehicles and equipment and by soil stockpiles during both the demolition and construction phases;
- determining the appropriate response, should unforeseen erosion or sedimentation problems arise; and
- ensuring 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 named party is responsible for notifying the City Engineer within twenty-four hours of any such situation with a plan for immediate corrective action.

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*.

Note: Because the project is between 1 and 5 acres (“small construction”), the applicant is not required to obtain a General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction from CT DEEP as long as the applicant has adhered to the erosion and sediment control regulations of the municipality in which the construction activity, in this case, the City of New Haven.

Sec. 60 Stormwater Management Plan: SUBMISSION MEETS REQUIREMENTS REQUIRED DOCUMENTATION

- Soil characteristics of site;
- Location of closest surface water bodies and depth to groundwater;
- DEEP ground and surface water classification of water bodies;
- Identification of water bodies that do not meet DEEP water quality standards;
- Proposed operations and maintenance manual and schedule;
- Location and description of all proposed BMPs;
- Calculations for stormwater runoff rates, suspended solids removal rates, and soil infiltration rates;
- Hydrologic study of pre-development conditions commensurate with conditions.

STANDARDS

- Direct channeling of untreated surface water runoff into adjacent ground and surface waters shall be prohibited;
- No net increase in the peak rate or total volume of stormwater runoff from the site, to the maximum extent possible, shall result from the proposed activity;
- Design and planning for the site development shall provide for minimal disturbance of pre-development natural hydrologic conditions, and shall reproduce such conditions after completion of the proposed activity, to the maximum extent feasible;
- Pollutants shall be controlled at their source to the maximum extent feasible in order to contain and minimize contamination;
- Stormwater management systems shall be designed and maintained to manage site runoff in order to reduce surface and groundwater pollution, prevent flooding, and control peak discharges and provide pollution treatment;
- Stormwater management systems shall be designed to collect, retain, and treat the first inch of rain on-site, so as to trap floating material, oil and litter;
- On-site infiltration and on-site storage of stormwater shall be employed to the maximum extent feasible;
- Post-development runoff rates and volumes shall not exceed pre-development rates and volumes for various storm events. Stormwater runoff rates and volumes shall be controlled by infiltration and on-site detention systems designed by a professional engineer licensed in the state of Connecticut except where detaining such flow will affect upstream flow rates under various storm conditions;

- Stormwater treatment systems shall be employed where necessary to ensure that the average annual loadings of total suspended solids (TSS) following the completion of the proposed activity at the site are no greater than such loadings prior to the proposed activity. Alternately, stormwater treatment systems shall remove 80 percent TSS from the site on an average annual basis; and
- Use of available BMPs to minimize or mitigate the volume, rate, and impact of stormwater to ground or surface waters.

Sec. 60.1 Exterior Lighting: SUBMISSION MEETS REQUIREMENTS
REQUIRED SUBMISSION

- Lighting Plan with location of all fixtures, type of fixture and mounting height of lights;
- Manufacturer specifications or cut-sheet for each fixture;
- Photometrics.

STANDARDS

- In general, all exterior light sources must be directed downward. The lighting must also be, as much as physically possible, contained within the target area;
- Parking Lot and Security Lighting.* All outdoor light fixtures within a parking lot, vehicular circulation area, or pedestrian area must be of a Full Cutoff or Fully-Shielded type;
- Architectural Lighting.* Lighting for building facades and Indirectly Illuminated Signs is permitted subject to the following: (a) Uplighting does not exceed 900 lumens & (b) Upward aimed light is Fully-Shielded and fully-confined from projecting into the sky, eaves, roofs, or overhangs. The light must be fully confined within the vertical surface of the wall being illuminated;
- Unshielded Lighting.* Floodlighting is discouraged, and if used, must be shown that the type of fixture proposed is not objectionable because it (a) prevents Glare for drivers and pedestrians and light above a horizontal plane, and (b) mitigates light trespass beyond the property line. Unshielded, motion activated lighting will not be triggered off the property on which the fixture is located and must go off within five minutes of activation. Unshielded lighting creating Glare or Light Trespass is required to be re-aimed and/or fitted with a shield device to block the Glare;
- Lighting Curfew.* On all parking fields, including surface lots, parking decks and top levels of parking garages which contain a minimum of four light poles, the lighting must be reduced by at least 50 percent of full operational levels within 30 minutes after the close of business. Because certain minimum lighting levels are recommended for safety and security, parking field lighting does not need to be reduced to less than an average .2 footcandles as measured horizontally at the surface on which the light pole is mounted in accordance with Illuminating Engineer Society (IES) Standards; and
- Height.* Exterior Lighting must not exceed 20 feet in height from the point on the ground directly below the fixture to the highest point on the fixture. Lighting mounted higher than 20 feet may be permitted through the site plan review process, either by Staff or the Commission, as applicable, depending on the site conditions;
- Maximum Light Levels at the Property Line.*
 - a. *The maximum light level at any point on the property line cannot exceed: .1 footcandles within or adjacent to a property with a residential use or .2 footcandles when adjacent to properties with other uses. Where the adjacent property is a residential use or mixed-use and the first floor is not residential, the maximum light levels at the property line cannot exceed .2 footcandles;*
 - b. *Color. Because blue light brightens the night sky more than any other color of light, lighting must have a color temperature of no more than 3000 Kelvins. Exterior Lighting that has warmer light spectrums are preferred;*
 - c. *The Staff or the Commission, as applicable, may determine that certain light fixtures are exempt from these requirements of this Section because they do not adversely affect an adjacent property owner or the night sky or because they are necessary for the functioning of the use.*

Sec. 60.2 Reflective Heat Impact: SUBMISSION MEETS REQUIREMENTS
STANDARDS

- 50% of all on-site non-roof hardscape or paved areas will be either:
 - shaded AND/OR
 - constructed of a material with a solar reflectance index of at least 29.

TOTAL SF of non-roof hardscape:
 50% of non-roof hardscape:

33,492 SF
 16,746 SF

Shaded (average)	1,622 SF
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SRI > 29	16,032 SF
Cement	11,501 SF
Parking striping	-
StreetBond coating	4,531 SF
TOTAL PROPOSED SHADED/HIGH SRI AREA	17,654 SF
% SHADED/HIGH SRI PROPOSED	52.7%

Note: Calculations above reference the area designated as the limit of work on plans. The applicant has also provided evidence showing that the entirety of the Science Hill block, bounded by Prospect Street, Edwards Street, Whitney Avenue and Sachem Street, complies with NHZO Section 60.2.

Project Timetable: Subject to approvals, it is anticipated that construction will commence in the fall of 2023 and be completed in the spring of 2025.

PUBLIC HEARING

A Public Hearing was held on the item pursuant to the New Haven Soil Erosion and Sediment Control Regulations, Section 7.6. The hearing was held on March 15, 2023. A transcript of the hearing, meeting #1629, is available from the City Plan Department. No members of the public gave testimony, and no written testimony was received.

PLANNING CONSIDERATIONS

As stated earlier in the report, this project is an enabling project for the development of a new science building, additions to the existing Wright Laboratory, and associated improvements which will be located, in part, on the site of the existing chemical safety building which will be demolished as part of a future application. Planning Staff and other city departments will continue to collaborate with Yale University on development of these plans as they progress. The applicant participated in three technical reviews with City staff and addressed questions raised during this process including those regarding reflective heat impact and stormwater management across the entire block, movement of vehicles through the site, pedestrian and bicycle access and integration of this site with adjacent neighborhoods, and safe movement of potentially hazardous materials. The Chemical Safety Building will support the world-class research and science education at Yale University, which in turn supports the growing biotech and innovation industries in New Haven. The new Chemical Safety Building will essentially replace the functions of the current CSB, with some increase in activity associated with the future additions to the campus. Planning Staff noted during the technical review process that continued enforcement of environmental health and safety procedures and coordination between the University and the City's public safety departments are critical.

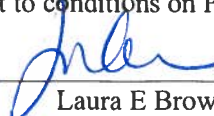
SITE PLAN REVIEW

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 City Plan Commission approves the submitted Site Plans subject to conditions on Page 1.

ADOPTED: March 15, 2023
Leslie Radcliffe
Chair

ATTEST: 

Laura E Brown
Executive Director, City Plan Department