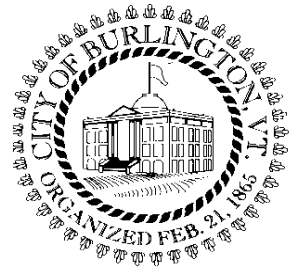


Department of Permitting and Inspections

Zoning Division
149 Church Street, City Hall
Burlington, VT 05401
www.burlingtonvt.gov/pz
Phone: (802) 865-7188
Fax: (802) 865-7195

William Ward, Director
Scott Gustin, AICP, CFM, Principal Planner
Mary O'Neil, AICP, Principal Planner
Ryan Morrison, Associate Planner
Layne Darfler, Planning Technician
Vacant, Zoning Clerk
Theodore Miles, Zoning Specialist
Charlene Orton, DPI Administrator



MEMORANDUM

To: The Design Advisory Board
From: Mary O'Neil, AICP, Principal Planner
RE: ZP20-0203CA; 149 Beaumont Avenue
Date: September 10, 2019

File: ZP20-0203CA

Location: 149 Beaumont Avenue (UVM Campus)

Zone: ICC-UVM **Ward:** IE

Parking District: Shared

Date application accepted: August 19, 2019

Applicant/ Owner: University of Vermont State Agricultural College

Estimated Construction Cost: \$33,000,000.

Request: 62,250 GSF addition to the existing HSRF building. Addition will be 4 stories and mechanical penthouse. New green space will replace portion of existing parking lot; to include paths, landscaping, benches and lighting

Background:

- **Zoning Permit 17-0771SN;** Installation of two sets of BI-L building mounted lettering for the Robert Larner MD College of Medicine, on east and west sides of entrance to the COM as per UVM Master Sign Plan. February 2017.
- **Zoning Permit 99-338/ 99-037CU/MA;** Construction of 110,000 sf Health Science Research Facility connected to the existing Stafford and Given buildings. February 1999.



Overview: UVM proposes this addition to the Health Sciences and Research Facility (HSRF), to provide flexible research lab space, lab support, and office spaces. It is design to house faculty moving out of Given Medical Building.

New green space will be provided north of the addition/ east of HSRF, replacing a portion of the existing parking lot. Walkways, bluelights, benches, and landscaping are included.

Part 1: Land Division Design Standards

Not applicable.

Part 2: Site Plan Design Standards
Sec. 6.2.2 Review Standards

(a) Protection of Important Natural Features:

The project site is currently a parking lot. There are no identified important natural features.

(b) Topographical Alterations:

The surrounding grade is slightly sloped; however, the building will be placed within the topography where grade changes will be addressed with stairs and retaining walls and support a loading dock on the southwest corner. (See A302)

(c) Protection of Important Public Views:

There are no protected views from or through this site. Not applicable.

(d) Protection of Important Cultural Resources:

Burlington's architectural and cultural heritage shall be protected through sensitive and respectful redevelopment, rehabilitation, and infill. Archeological sites likely to yield information important to the city's or the region's pre-history or history shall be evaluated, documented, and avoided whenever feasible. Where the proposed development involves sites listed or eligible for listing on a state or national register of historic places, the applicant shall meet the applicable development and design standards pursuant to Sec. 5.4.8(b).

Not applicable.

(e) Supporting the Use of Renewable Energy Resources:

The submission narrative defines solar panels on the top of a proposed shed at Jeffords Hall. Further information is not included in the submission narrative.

The application for the addition does not impede the potential use of wind, water, solar, geothermal or other alternative renewable energy resource.

(f) Brownfield Sites:

Not applicable.

(g) Provide for nature's events:

Special attention shall be accorded to stormwater runoff so that neighboring properties and/or the public stormwater drainage system are not adversely affected. All development and site disturbance shall follow applicable city and state erosion and stormwater management guidelines in accordance with the requirements of Art 5, Sec 5.5.3.

Design features which address the effects of rain, snow, and ice at building entrances, and to provisions for snow and ice removal or storage from circulation areas shall also be incorporated.

The applicant has provided EPSC and Stormwater Discharge plan for review by the Stormwater Engineering team.

A slightly recessed entry with cover is provided on the north elevation (Plan A8.90). A covered south entry has been graded toward vertical accessibility.

(h) Building Location and Orientation:

The proposed addition is appended to the existing Health Science Research Facility (HSRF), with new exposure on the south, east and north. Its location and orientation is consistent with the arrangement of existing buildings and access to Beaumont Avenue.

(i) Vehicular Access:

Vehicular access will continue along Beaumont Avenue; and via a drop-off area north of the building. Access will continue to the parking areas south of the proposed addition via Carrigan Drive; west and north of the water tower.

(j) Pedestrian Access:

New meandering walkways are proposed north of the addition (between this and the south elevation of the Given Medical Building). Dual access avenues are proposed for the south elevations; one to satisfy vertical access, and other via a stairway. Unfortunately, there is no identified pedestrian path to link this south stairway entrance to the any other pedestrian walkway or the crosswalks on Carrigan Drive. Pedestrians are left to navigate behind parking spaces in an effort to reach another sidewalk. An identified pedestrian path should be identified at this location.

(k) Accessibility for the Handicapped:

Vertical access is provided at the south elevation. A collection of identified ADA parking spaces are illustrated on the east of the addition site. General ADA compliance review is under the jurisdiction of the building inspector.

(l) Parking and Circulation:

For circulation, see Vehicular Access, above.

The addition is proposed on the site of an existing parking lot; displacing 121 parking spaces. The proposed new gross floor area will increase parking demand by 125 parking spaces for a total parking requirement of 246 parking spaces. (It is possible to recalculate the required parking under **Medical Lab**; a more specific use than the overall **School - Post-Secondary** parking requirement. That would reduce the parking requirement to **62 spaces for the new use** (1 ps / 1,000 gfa.) + 121 spaces displaced for a total of **183 required parking spaces**.) As noted in the application, the Joint Institutional Parking Management Plan has not been adopted for the ensuing 5 year term, and the last approved plan was for 2014-2019. Therefore, the applicant must respond to the requirements of the ordinance on a project by project basis.

The applicant proposes meeting this new parking demand by:

- a. Reopening the Converse Lot (94 spaces);
- b. Reopening the Jeffords East lot (100 spaces); both of which have been closed due to construction;

- c. Construction of a new parking lot (66 net new spaces) east of the Jeffords East Parking lot, to be permitted under a separate application. No application has been received as of this date.
- d. Bringing 200 e-bikes into the regional bikeshare program, and adding 2 bicycle hubs to campus.

Examination of the last approved JIPMP did not reveal a breakdown of the parking lots associated with UVM and their capacity, only identification of the parking zones. Presumably, the Converse Lot and the Jeffords East lot remained part of the overall inventory of parking in the 2014-2019 plan. A suggestion to “re-open” them amounts to double counting existing parking infrastructure, and would not meet the requirements of providing new required parking spaces.

Without an application for a new parking lot east of Jeffords East lot, it is challenging to forecast its ability to satisfy the requirements of this proposal; however, 66 spaces will not meet the total new demand. (183 required -66 new lot =117 balance unmet parking spaces.)

The addition of e-bikes may subsidize some of the *inter-campus* parking need. Their demonstrated ability to replace vehicular parking is not included in this plan.

The previous JIPMP identified 100 spaces in the Jeffords Lot that are leased. Reclaiming those parking spaces will advance this proposal.

The failure to meet parking requirements remains problematic for this application. The lack of an approved parking management plan, which would have addressed any new construction planned for the next five years, further hinders this plan.

(m) Landscaping and Fences:

The newly introduced green area/patio north of the new addition is amply landscaped; See Plan LA-3.20. Plantings are proposed along paver edges as well. (LA-2.00.)

(n) Public Plazas and Open Space:

The green space will provide a seating area, new lighting, walkways, and associated bike parking. Refer to Plan LA-1.10.and LA-4.00.

(o) Outdoor Lighting:

Where exterior lighting is proposed the applicant shall meet the lighting performance standards as per Sec 5.5.2.

A lighting plan, photometrics and fixture specification sheets have been provided. Sidewalk illumination in a few spots is slightly above the 2.0 fc measurement identified as a maximum for walkways. Additionally, there are “hot spots” around light fixture B8 (7.7 fc) and A5 (5.2) which are extraordinarily high for a pedestrian path. Unless these are identified as egress paths for emergency, the light levels should be modified.

(p) Integrate infrastructure into the design:

Exterior storage areas, machinery and equipment installations, service and loading areas, utility meters and structures, mailboxes, and similar accessory structures shall utilize setbacks, plantings, enclosures and other mitigation or screening methods to minimize their auditory and visual impact on the public street and neighboring properties to the extent practicable.

Utility and service enclosures and screening shall be coordinated with the design of the principal building, and should be grouped in a service court away from public view. On-site utilities shall be placed underground whenever practicable. Trash and recycling bins and dumpsters shall be located, within preferably, or behind buildings, enclosed on all four (4) sides to prevent blowing trash, and screened from public view.

Any development involving the installation of machinery or equipment which emits heat, vapor, fumes, vibration, or noise shall minimize, insofar as practicable, any adverse impact on neighboring properties and the environment pursuant to the requirements of Article 5, Part 4 Performance Standards.



The truck loading area is enclosed within a perimeter wall on the southwest corner, shielding it from view. Two BED transformers and a generator are also located next to a wall. If it can be done without impeding the function of the generator some screening may be warranted on the south of that equipment (particularly as this is the terminus of two crosswalks on Carrigan Drive.) See image at left.

This is a Google view of that raised area where the generator is proposed; directly at the terminus of crosswalks on Carrigan Drive.

Part 3: Architectural Design Standards

Sec. 6.3.2 Review Standards

As an educational institution, this permit application has limited municipal review per Vermont State Statute §4413. **Limitations on municipal bylaws.**

(a) The following uses may be regulated only with respect to location, size, height, building bulk, yards, courts, setbacks, density of buildings, off-street parking, loading facilities, traffic, noise, lighting, landscaping, and screening requirements, and only to the extent that regulations do not have the effect of interfering with the intended functional use.

(a) Relate development to its environment:

1. Massing, Height and Scale:

The proposed addition is consistent with the massing, height and scale of the existing Health Science Research Facility, to which it is appended. It will not exceed the UVM Central Campus Height Overlay maximum height of 140'. (Section 4.5.2 (d); Map 4.5.2-4)

2. Roofs and Rooflines.

A gradually increasing roofline on the southwest corner will meet the roof level of the Health Science Research Facility, integrating the penthouses. See image at right.



3. Building Openings

No review per §4413. Limitations on municipal bylaws.

(b) Protection of Important Architectural Resources:

Burlington's architectural and cultural heritage shall be protected through sensitive and respectful redevelopment, rehabilitation, and infill. Where the proposed development involves buildings listed or eligible for listing on a state or national register of historic places, the applicant shall meet the applicable development and design standards pursuant to Sec. 5.4.8. The introduction of new buildings to a historic district listed on a state or national register of historic places shall make every effort to be compatible with nearby historic buildings.

Not applicable.

(c) Protection of Important Public Views:

There are no protected views from or through this site. Not applicable.

(d) Provide an active and inviting street edge:

No review per §4413. Limitations on municipal bylaws.

(e) Quality of materials:

All development shall maximize the use of highly durable building materials that extend the life cycle of the building, and reduce maintenance, waste, and environmental impacts. Such materials are particularly important in certain highly trafficked locations such as along major streets, sidewalks, loading areas, and driveways. Efforts to incorporate the use of recycled content materials and building materials and products that are extracted and/or manufactured within the region are highly encouraged.

Owners of historic structures are encouraged to consult with an architectural historian in order to determine the most appropriate repair, restoration or replacement of historic building materials as outlined by the requirements of Art 5, Sec. 5.4.8.

No review per §4413. Limitations on municipal bylaws.

(f) Reduce energy utilization:

The building has been designed with a goal to meet LEED Silver. See energy saving strategies, P. 2 of submission narrative.

(g) Make advertising features complementary to the site:

Any signage will be subject to separate review under UVM's adopted Master Sign Plan.

(h) Integrate infrastructure into the building design:

See Section 6.2.2 (p), above.

(i) Make spaces secure and safe:

Any development is required to meet all building and life safety code as defined by the building inspector and fire marshal.



Department of Planning and Zoning

149 Church Street, City Hall
Burlington, VT 05401-8415
Phone: (802) 865-7188
Fax: (802) 865-7195

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DEPARTMENT OF
PLANNING & ZONING

Zoning Permit Application

Use this form for ALL zoning permit applications. See the relevant checklist for specific requirements.

PROJECT LOCATION ADDRESS: 149 Beaumont Avenue

PROPERTY OWNER*: University of Vermont & State Agricultural College

*If condominium unit, written approval from the Association is also required

APPLICANT: University of Vermont & State Agricultural College

POSTAL ADDRESS: 16 Colchester Avenue

CITY, ST, ZIP: Burlington, VT 05405

DAY PHONE: (802) 656-3208

EMAIL: Lani.Ravin@uvm.edu

POSTAL ADDRESS: 16 Colchester Avenue

CITY, ST, ZIP: Burlington, VT 05405

DAY PHONE: (802) 656-3217

EMAIL: Lani.Ravin@uvm.edu

SIGNATURE: Lani Ravin, for the University of Vermont & State Agricultural College

I am the owner. In addition, I duly authorize the applicant (if noted) to act on my behalf for all matters pertaining to this zoning permit application.

SIGNATURE: Lani Ravin, AICP

Description of Proposed Project: Construction of a new 62,250 GSF addition to the existing HSRF building, for flexible lab space and support, to replace faculty research space moving out of Given. Addition will be 3-4 stories and me penthouse. New green space will replace portion of existing parking lot; to include paths, landscaping, benches and

Existing Use of Property: ☐ Single Family ☒ Multi Family: # ☐ Units ☒ Other: Institutional Academic

Proposed Use of Property: ☐ Single Family ☐ Multi Family: # ☐ Units ☒ Other: Institutional Academic

• **Does your project involve new construction, addition, alteration, renovation, or repair to a structure that is heated or cooled?** Yes ☒ No ☐

(If yes, the Vermont Residential/Commercial Building Energy Standards (VRBES/VCBES) apply. Please visit the following links for more information: http://publicservice.vermont.gov/energy_efficiency/rbes or http://publicservice.vermont.gov/energy_efficiency/cbes)

• **Will 400 sq ft or more of land be disturbed, exposed and/or developed?** Yes ☒ No ☐

(If yes, you will need to submit the 'Erosion Prevention and Sediment Control Plan' questionnaire, with a site plan)

• **For Single Family & Duplex, will total impervious area be 2500 sq ft or more?** Yes ☐ No ☐

(If yes, you will need to submit the 'Stormwater Management Plan' questionnaire, with a site plan)

• **Are you proposing any work within, below, or above the public right of way?** Yes ☐ No ☐

(If yes, you will need to receive prior approval from the Department of Public Works)

• **Are you proposing any onsite food or beverage production/manufacturing?** Yes ☐ No ☐

(If yes, you will need to consult with Water Resources Division at the Department of Public Works: 863-4501)

Estimated Construction Cost (value)*: \$ 33,000,000

(*Estimated cost a typical contractor would charge for all materials and labor, regardless of who physically completes the work)

Within 30 days of submission, the permit application will be reviewed for completeness, and, if complete, will be processed administratively or referred to a board for review. All permit approvals or denials are subject to an appeal period (15 days for administrative permit; 30 days for board permit). A building (and/or electrical, mechanical, plumbing, curb cut) permit will also be required. Contact the Department of Public Works at 802-863-9094 to inquire. Please ask for assistance if you have any questions about this form. Call the Planning and Zoning at 802-865-7188, or visit the office in the lower level of City Hall, 149 Church Street.

Office Use Only: Zone: ☐ Eligible for Design Review? ☐ Age of House ☐ Lot Size ☐

Type: SN ☐ AW ☐ FC ☐ BA ☐ COA 1 ☐ COA 2 ☐ COA 3 ☐ CU ☐ MA ☐ VR ☐ HO ☐ SP ☐ DT ☐ MF ☐

Check No. 1478134 Amount Paid 606115 Zoning Permit # 20-02030



The University of Vermont

To: Scott Gustin, Principal Planner
Burlington Planning & Zoning Department
149 Church Street
Burlington, VT 05401

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August 17, 2019

DEPARTMENT OF
PLANNING & ZONING

Dear Scott,

Re: Zoning Permit Application for the University of Vermont Larner College of Medicine (LCOM) Addition to the Health Sciences and Research Facility (HSRF), 149 Beaumont Avenue, Burlington

This is a COA Level II application for the University of Vermont (UVM) Larner College of Medicine (LCOM) to construct an addition to the Health Sciences and Research Facility (HSRF), at 149 Beaumont Avenue, in Burlington.

The building addition will consist of a new 62,250 gross square feet (GSF) addition to HSRF, in four stories with a partial mechanical penthouse. The building's program consists of flexible research lab space, with associated lab support, write-up, and office spaces, designed to house faculty moving out of Given. The new labs will function collaboratively across disciplines by allowing multiple research groups to work together in combined spaces with shared resources. The new addition will be accessed mainly through HSRF and through a new enhanced south entry, graded for accessibility. The lab suites in the addition are securable from the rest of the Given/HSRF complex, allowing for any LCOM research which may have specific access or security concerns to be located in the building.

As part of the project, a new green space will be provided north of the addition/east of HSRF, replacing a portion of the existing parking lot. Proposed features include lighted meandering walkways, blue lights, benches, landscaping with defined areas for low-maintenance vegetation versus lawn space, shade trees along the parking areas, and drainage swales with catch basins that drain to UVM's existing stormwater ponds. No irrigation is proposed for the open spaces, which will reduce water demand for the site.

See Project Description for more details.

Lot coverage for the existing UVM North of Main campus is currently 50.51%. This project will create a tiny net decrease of ~85 s.f. in impervious surface. This will bring the lot coverage to 50.50%.

Parking: The building footprint will displace 121 parking spaces. According to the BCDO, the new space will require an additional 124 spaces, for a total of 245 spaces. Currently there is no Joint Institutional Parking Management Plan in place for the institutions, so the University must address this direct parking impact. This will be accomplished by a number of initiatives:



The University of Vermont

1. Re-opening the Converse lot (94 spaces) and the Jeffords East (100 spaces) lots, which have both been closed due to construction for the past 4-5 years.
2. Construction of a new parking lot, east of the existing Jeffords East parking lot, with 66 net new spaces. This will replace spaces that existed previously, but were removed over the past few years, due to other buildings and campus projects. We are applying for this project separately, but we are planning for concurrent construction.
3. The University is collaborating with the City of Burlington, Gotcha Bikes and others to bring 200 e-bikes to the regional bikeshare program, including adding two bikeshare hubs to campus, for a total of 7 bikeshare hubs. E-bike use has been shown to decrease private vehicle use, in other (cold climate) cities in the US.

Stormwater and Erosion Control: See attached Erosion Prevention & Sediment Control Narrative and permit application, as well as the Stormwater Discharge Narrative. The University will continue to work closely with the Burlington DPW Stormwater Program Manager and copy her on information given to and received from the state stormwater permitting authorities.

The University is working with the Burlington Fire Department, the Burlington Electric Department and the Burlington Department of Public Works on completion of technical details.

By the time construction for this project begins, construction on the STEM buildings and the UVM Medical Center new building will have been completed. The route that construction vehicles will take will be similar to these previous projects, from the Jughandle, through a short section of East Avenue, to Carrigan Drive and Beaumont Avenue, into the University campus. This route will not go past any residential neighbors.

We request construction hours, for all vehicles related to this project, as follows:

Monday through Friday: 7:00 AM – 6:00 PM

Saturday: 8:00 AM – 4:30 PM

Sunday: Indoor activities only, no significant noise: 8:00 AM – 4:30 PM.

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As consistent with past practices, the University has met with key community stakeholders including the NPA to inform them about this project.

The project construction cost is \$33,000,000. Construction is scheduled to start in the spring of 2020 and be completed by summer 2022.

Please contact me if you have any further questions or would like more information.

CAMPUS PLANNING SERVICES

109 South Prospect Street, Burlington, VT 05405-0016
Telephone (802) 656-7878, Fax (802) 656-8895



The University of Vermont

Sincerely,

Lani Ravin, AICP,

Associate Planner

Campus Planning Services, UVM

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cc: Lisa Kingsbury, Interim Co-Director, and Planning Relations Manager, Campus Planning Services
Joanna Birbeck, Interim Co-Director, and Campus Space Manager, Campus Planning Services
Robert Vaughan, Director, Capital Planning & Management
Paula Carlaccini, Director, Facilities Design & Construction
Kate Coffey, Project Manager, Facilities Design & Construction

ATTACHMENTS:

Zoning Permit Application

Check # 1478134 for \$ 66,110.00

Site Location Plan

Project Description

EPSC Application

EPSC Narrative

SW Narrative

Plans, dated 5/2/2019 and 8/15/2019:

Title Page

C1.00 Overall Site Plan

C1.01 Overall Utility Plan

C1.02, C1.03, C1.04 Civil Site & Utility Plan(s)

C1.05 Post Construction Stormwater Maintenance Plan

C2.00 Existing Conditions Plan

C3.00 Civil Site Demolition Plan

C4.00 EPSC Plan Preconstruction Summer 2020

C4.01 EPSC Plan Summer 2020

C4.02 EPSC Plan Winter 2020-2021

C4.03 Stabilization & Post Construction Soil Restoration Plan Summer 2021

C4.04 RPSC Plan Winter 2021-2022

C4.05 Stabilization & Post Construction Soil Restoration Plan Spring 2022

C5.00 Sanitary Profiles

C6.00, C6.01, C6.02, C6.03, C6.04 Civil Details

CAMPUS PLANNING SERVICES

109 South Prospect Street, Burlington, VT 05405-0016

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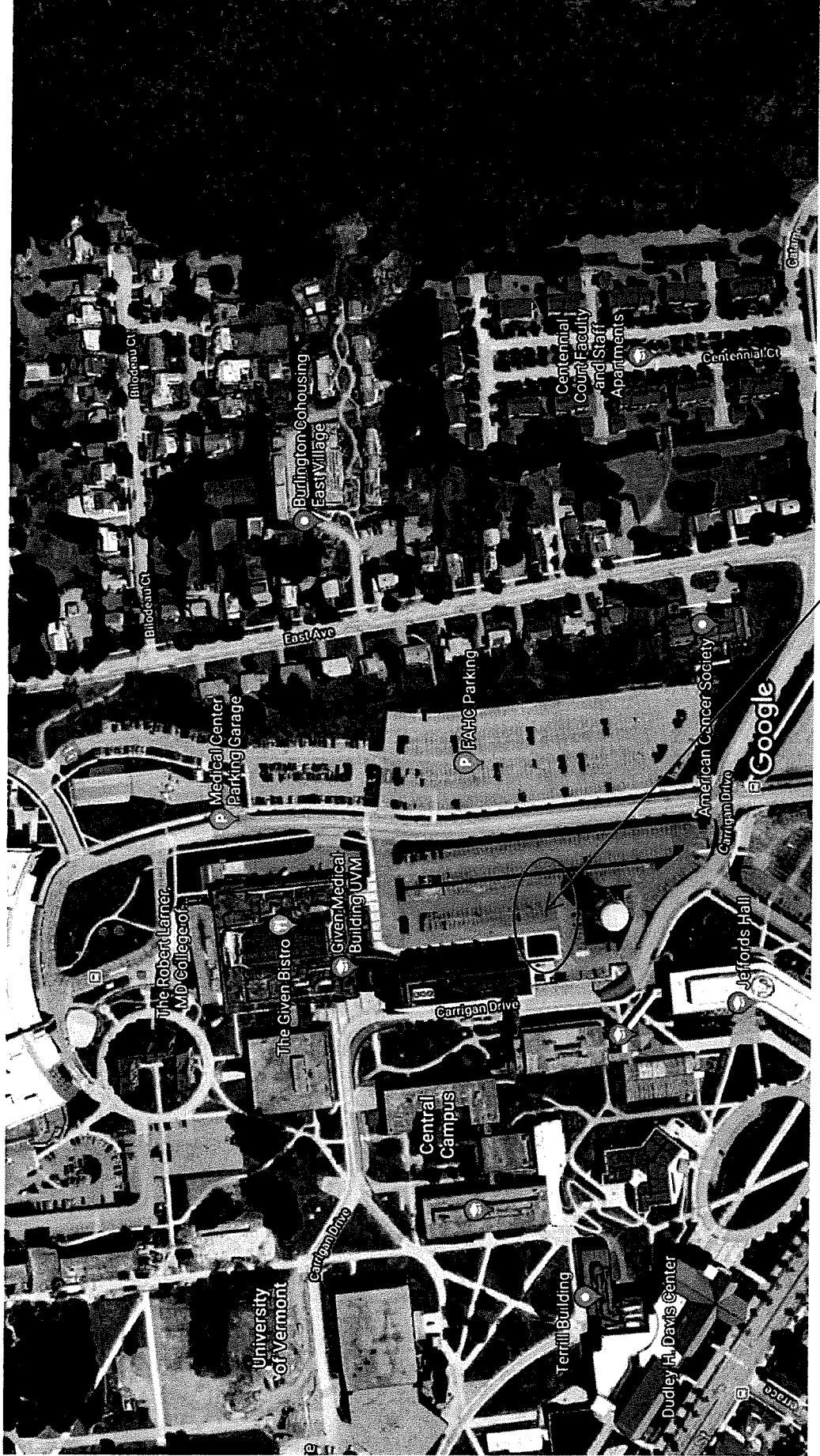
The University of Vermont

LA-0.00 General Notes & Abbreviations
LA-1.00, LA-1.10, LA-1.20 Layout Plan(s)
LA-2.00 Landscape Details
LA-3.00, LA-3.10, LA-3.20 Planting Plan(s)
LA-3.30 Planting Details
LA-4.00, LA-4.10, LA-4.20 Lighting Plan(s)
LA-4.30 Planting Details
A3.00 Exterior 3D Views
A3.01, A3.02 Exterior Elevations
A3.10, A3.11 Building Sections
A8.90 Exterior Details - Sketches

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Google Maps UVM Lerner College of Medicine Addition to Health Sciences Research Facility (HSRF) 149 Beaumont Ave.



Imagery ©2019 Google, Map data ©2019 Google 200 ft

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Project Location

UVM LARNER COLLEGE OF MEDICINE NEW RESEARCH BUILDING ADDITION TO EXISTING HEALTH SCIENCES RESEARCH BUILDING: BACKGROUND AND PROJECT DESCRIPTION

Background:

The University of Vermont has identified the New Research Laboratory for the Larner College of Medicine and Psychology Department project as one of its highest priority facilities needs.

The Larner College of Medicine (LCOM) and the Department of Psychological Science of the College of Arts and Sciences (Psychology Dept.) conduct internationally renowned research that improves the health and healthcare of the citizens of Vermont, our nation and the world. UVM's research is an economic engine for the entire state. In the last year for which full data are available, the Larner College of Medicine generated \$90 million in research funding, approximately nine times the average return on State investment for public medical schools. This research is a foundation for M.D., Ph.D., undergraduate and honors college research experiences and for new clinical technology and treatment not otherwise available in the State.

Much of this research is currently housed in the Given Building (opened 1963; 245,987 GSF) and Dewey Hall (opened 1905; 45,287 GSF). These buildings are outdated according to today's research standards. After investigation, the University has concluded that it is not feasible to renovate these buildings for research labs. In order to maintain our ability to attract and retain the best scientists, the University has concluded that there is a need to build a new facility, dedicated to state of the art research labs.

This project will address the need for upgraded research facilities by construction of a new 62,250 GSF modern research facility adjacent to Given, attached to the existing Health Sciences and Research Facility (HSRF). The new building addition will provide modern, flexible, collaborative research space allowing UVM to recruit and retain the best scientists and grow our world-class research.

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New Research Building Addition: Project Description

DEPARTMENT OF
PLANNING & ZONING

The new building addition to HSRF will be 62,250 GSF in four stories and a partial mechanical penthouse. The building's program consists of flexible research lab space, with associated lab support, write-up, and office spaces, designed to house faculty moving out of Given. The new labs will function collaboratively across disciplines by allowing multiple research groups to work together in combined spaces with shared resources. The new addition will be accessed mainly through HSRF and through a new enhanced south entry, graded for accessibility. The lab suites in the addition are securable from the rest of the Given/HSRF complex, allowing for any LCOM research which may have specific access or security concerns to be located in the building.

Architecture:

The building is designed to be complementary to the existing HSRF. The addition incorporates masonry facades utilizing brick matching the HSRF Building. Punched windows will be similar to

existing HSRF windows in material, finish and pattern. The form of the addition is purposefully designed to locate the penthouse to the west to integrate into the existing HSRF penthouse and conceal the existing penthouse from view from the south and to integrate into the overall building form from the east and west. The south wall of the addition penthouse is an extension of the main building façade. The façade slopes down from the penthouse level at the west to the fourth floor level at the east to reduce the visual impact of the building as you enter the College of Medicine complex from both Williston Rd. via the Medical Center emergency entrance and from the east via Beaumont Ave.

Open Space:

As part of the project, a new green space will be provided north of the addition/east of HSRF, replacing a portion of the existing parking lot. The green space will provide much-needed outdoor space for LCOM faculty, staff and students, with direct access from the new addition HSRF & Given. The design also provides for a tent site (40' x 80' tent) for College and University events.

Other proposed features include lighted meandering walkways, blue lights, benches, landscaping with defined areas for low-maintenance vegetation versus lawn space, shade trees along the parking areas, and drainage swales with catch basins that drain to UVM's existing stormwater ponds. No irrigation is proposed for the open spaces, which will reduce water demand for the site.

Energy Efficiency:

The building is being designed with a goal of LEED Silver. Energy-saving strategies including chilled beams, a high performance insulated brick envelope and triple glazed punched windows in thermally broken aluminum frames with two Low-E coatings, allowing perimeter heating to be eliminated. Daylighting is optimized with large north facing windows and interior glazing to bring light deep into the labs and view corridors. Other features include bike racks (both covered and uncovered), showers, water use reduction fixtures, building level metering and submetering and enhanced commissioning.

Growth:

The goal of this project is to improve lab space and create state of the art facilities for existing LCOM faculty and researchers. There will be no new staff, students or faculty as a result of this project. Once completed, many faculty and staff will relocate from the Given Building into the new facility. This will allow for future renovation of the Given Building.

Both the LCOM and the overall University have been experiencing a very modest growth in faculty, staff and students of approximately one percent per year, over the past few years. This project will not affect this modest, university-wide rate of growth.

Lot Coverage: Existing lot coverage on the main campus is 50.51%. Proposed lot coverage will be 50.50%.

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24 VSA§4413: Limitations on municipal bylaws:

The University may be regulated by the city only with respect to location, size, height, building bulk, yards, courts, setbacks, density of buildings, off-street parking, loading facilities, traffic, noise, lighting, landscaping, and screening requirements, and only to the extent that regulations do not have the effect of interfering with the intended functional use.

Location: This is an addition to an existing building on the university campus, within the Institutional Main Campus overlay, in an area that is designated in the UVM Campus Master Plan for scientific research. This is an appropriate location for academic medical research.

Size, Height and Building Bulk: The addition is the same height and similar bulk as the existing HSRF building. The size is proportional to the existing building, and smaller than Given and the original building. The size, height and bulk of the addition fits in with its surrounding buildings.

Yards, Courts and Landscaping: A new green courtyard is being created, nestled between the existing building and the new addition, as described above under "Open Space".

Setbacks: This project conforms to the setbacks required in the BCDO.

Density of Buildings: The Institutional Main Campus Overlay is designated, within the BCDO and the Burlington Comprehensive Plan, as the main area where there should be a density of University buildings. Excerpt, Plan BTV, Page 102: "It is essential to continue to focus future growth needs of these (UVM and other) institutions within their core campuses..."

Off-Street Parking: The University organizes parking on a campuswide basis. Parking lots are available to all affiliates, campuswide. Parking lots are not associated with specific buildings.

The building footprint will displace 121 parking spaces. According to the BCDO, the new space will require an additional 124 spaces, for a total of 245 spaces. Currently there is no Joint Institutional Parking Management Plan in place for the institutions, so the University must address this direct parking impact. This will be accomplished by a number of initiatives:

1. Re-opening the Converse lot (94 spaces) and the Jeffords East (100 spaces) lots, which have both been closed due to construction for the past 4-5 years.
2. Construction of a new parking lot, east of the existing Jeffords East parking lot, with 66 net new spaces. This will replace spaces that existed previously, but were removed over the past few years, due to other buildings and campus projects. We are applying for this project separately, but we are planning for concurrent construction.
3. The University is collaborating with the City of Burlington, Gotcha Bikes and others to bring 200 e-bikes to the regional bikeshare program, including adding two bikeshare hubs to campus, for a total of 7 bikeshare hubs. E-bike use has been shown to decrease private vehicle use, in other (cold climate) cities in the US.

Bicycle Parking and Facilities:

- This project will add outdoor bike rack spaces for 64 bicycles, as imbedded inverted U's. These will be near the entries on the north, south and west sides of the HSRF/new addition.
- 12 covered and secure (able to be locked, 2 points of contact), indoor bike parking spaces, located on the two entry floors of the new addition.
- Two showers, within the new addition.

Loading Facilities: The new building will have a loading dock at the southwest corner.

Traffic Impacts: Existing faculty and researchers will move from their offices in the Given Building to the new addition at HSRF, which is next door. There will be no space for additional faculty or researchers. Therefore we expect no impact to traffic and circulation from this project, after construction.

Construction Traffic: By the time construction for this project begins, construction on the STEM buildings and the UVM Medical Center new building will have been completed. The route that construction vehicles will take will be similar to these previous projects, from the Jughandle, through a short section of East Avenue, to Carrigan Drive and Beaumont Avenue, into the University campus. This route will not go past any residential neighbors.

Bicycle Parking and Facilities:

- This project will add outdoor bike rack spaces for 64 bicycles, as imbedded inverted U's. These will be near the entries on the north, south and west sides of the HSRF/new addition.
- 12 covered and secure (able to be locked, 2 points of contact), indoor bike parking spaces, located on the two entry floors of the new addition.
- Two showers, within the new addition.

Noise: The research activities taking place within this facility will not generate noise. Construction noise will be contained within the University campus. There will be no blasting.

Lighting: All outdoor lighting will conform to the relevant IESNA standards, the BCDO requirements, and will utilize UVM's standard lighting specs. See photometric plan.

Screening: The loading dock will be screened from the entrance to the building by a decorative wall. Utilities will be screened from view by vegetation and solid fencing.

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**Burlington Department of Public Works
Stormwater Program**

234 Penny Lane (Water Plant)
Burlington, VT 05401

PH: 802-863-4501 Email: stormwater@burlingtonvt.gov



Standard Erosion Prevention & Sediment Control (EPSC) Plan

This questionnaire and associated EPSC plan sheets are required for projects

- on properties other than single family (R1) or duplexes (R2) that require a level II or III Certificate of Appropriateness or Major Impact zoning applications and involve 5000 sq. ft. or more of earth disturbance; or
- any activity where a zoning permit is not required but where the project involves 10,000 sq. ft. or more of earth disturbance; or
- if requested by the Stormwater Program due to project characteristics such as slope, soils or proximity to drainage structures or waterbodies.

Please note that you must submit EPSC plan and detail sheets as outlined in section A below.

All projects involving redevelopment or addition of impervious surface must submit the stormwater management screening project (attached) for evaluation or meet with the Stormwater Program to determine the stormwater management requirements for your project.

1. Project Location University of Vermont - Health Science Research Facility at 149 Beaumont Ave.

2. Zoning Permit Address (if different from above): 149 Beaumont Ave.

3. Brief Project Description (i.e. building construction, subdivision, site work)

Construction of a new building addition to the existing Health Science Research Facility. Construction will include a number of site utilities, driveway, parking, and sidewalk improvements, new bike racks, hardscape, and landscape improvements.

4. Owner Name: University of Vermont

5. Owner Mailing Address: 109 South Prospect Street

6. Owner Phone: 656-3208

6. Owner email: Lani.Ravin@uvm.edu

7. Contractor Name: _____ ☒ Contractor not known at this time

8. Contractor Phone: _____

9. Contractor Email: _____

10. Estimated Project Start Date April 2020

Estimated End Date October 2021

11. Area of Land Disturbance 90,660 sq. ft.

12. Total proposed (existing + new) amount of impervious: 64,710 sq. ft.

14. Does your project require a State Construction Stormwater Permit (9020 or INDC)? ☒ Yes ☐ No
(You will be required to submit proof of your authorization to discharge prior to initiation of earth disturbance).

A. REQUIRED PLAN SHEETS:

15. Plan sheet(s) MUST BE ATTACHED showing the following:

- | | |
|---|--|
| ☒ Limits of disturbance | ☒ Direction of stormwater flow on site |
| ☒ Location of stockpiles (if any) | ☒ Location of sediment control BMP's (silt fence etc.) |
| ☒ Location of stabilized construction entrances | ☒ Stabilization measures |
| ☒ Phasing plan (if appropriate) | |

*impervious = any surface off of which water runs off rather than infiltrates, including, but not limited to rooftops and paved/unpaved (gravel/packed dirt) driveways, walkways and patios

16. Detail sheet MUST BE ATTACHED and include details for all EPSC measures listed on the EPSC Plan Sheet. Additionally, notes must be included related to:

- ☒ Daily inspection of roadways and sweeping as necessary
- ☒ Dewatering measures (if applicable)
- ☒ Temporary site stabilization requirements
- ☒ Final site stabilization requirements
- ☒ Winter site stabilization (for disturbance after November 1)
- ☒ Inspection requirements

B. EPSC QUESTIONNAIRE (See last page for typical solutions to these questions)

A) Do you anticipate the need for any dewatering of excavations during the construction? ☒ Yes ☐ No

- If yes, please indicate which plan sheet has details for how dewatering operations will be managed to prevent the discharge of sediment laden water. Sheet(s): C4.00

B) Will excavated soil be stockpiled on the site? ☒ Yes ☐ No If yes, show locations and EPSC measures for the stockpile on plan sheet(s) **Excess soil will be hauled to an approved off-site soil disposal area.**

- If no, where is the ultimate disposal of excess soil? disposal area.

C) Do you plan to park construction vehicles on or disturb City owned property like the greenbelt area? ☐ Yes ☒ No

- If yes, tell us how you agree to repair all disturbances or damage to City owned property and provide a written approval from the City allowing construction vehicles to park on City owned property.

- If no, then please monitor all construction and visitor vehicles and advise all not to park on City owned property.

D) Will stockpiles or disturbed soils be present and/or exposed after Nov. 1st of any construction year? ☒ Yes ☐ No

- If yes, tell us how you plan to stabilize any stockpile and/or disturbed soils.

Earthwork will continue until weather makes it impractical. Disturbed soils will be stabilized with crushed stone daily or prior to any forecasted precipitation.

Do you agree to abide by the following conditions?

☒ Y ☐ N Applicant will call 863-4501 or email gjohnson@burlingtonvt.gov at least 24 hours prior to initiating earth disturbance and submit the name and contact (cell phone and email) of the erosion control coordinator for the project

☒ Y ☐ N Applicant will post the attached notice in a visible location

☒ Y ☐ N I acknowledge that it is the responsibility of the owner and his/her representatives to ensure that:

- sediment does not enter surface water bodies (streams, ditches, ponds, lakes, wetlands etc.)
- sediment does not enter City conveyance infrastructure (catch basins, sewers etc.) and
- All sediment must be removed from the city ROW (sidewalks and roadways) by the end of each work day

☒ Y ☐ N Sediment control measures will be installed prior to the initiation of earth disturbance.

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- ☒ Y ☐ N During the non-winter construction season (April 15 – November 1): After an initial 14 day period of initial disturbance, temporary or permanent stabilization (mulching, erosion control matting or tarps for stockpile other approved method) of exposed areas and stockpiles will occur at the end of each work day unless:
- o Earthwork is to continue in the area within the next 24 hours and there is NO liquid precipitation forecast for the next 24 hours; or
 - o If work is occurring in a self contained excavation (no outlet) with a depth of 2 feet or greater (e.g. house foundation excavation or utility trenches).
- ☒ Y ☐ N During the winter construction period from November 1 to April 15, any new disturbance must be temporary or permanently stabilized (mulching, erosion control matting or tarps for stockpiles, or other approved method) will occur at the end of each work day unless:
- o Earthwork is to continue in the area within the next 24 hours and there is NO liquid precipitation forecast for the next 24 hours; or
 - o If work is occurring in a self-contained excavation (no outlet) with a depth of 2 feet or greater (e.g. house foundation excavation or utility trenches)
- ☒ Y ☐ N The perimeter of the site and all BMPs will be inspected at the end of each workday to ensure that sediment will not leave the site. If sediment has travelled beyond the site boundary, it shall be swept up or otherwise removed and deposited on-site in an upgradient area at the end of each work day.
- ☒ Y ☐ N The owner and his/her representatives shall abide by the best management practices (BMPs) indicated in this plan and conditions and in the Vermont DEC Low Risk Site Handbook for Erosion Prevention and Sediment Control (2006). Contact 802-863-4501 for a hard copy or go to the web:
http://vtwaterquality.org/stormwater/docs/construction/sw_low_risk_site_handbook.pdf
- ☒ Y ☐ N If soils will be exposed after November 1st and winter construction has not been permitted the project will notify DPW prior to October 15th and ensure that sediment control is installed PRIOR to soil freezing. If the project is completed during the winter months, an additional inspection will be required to ensure that the site is buttoned up for the winter.
- ☒ Y ☐ N Within 48 hours of reaching final grading, the exposed soil will be seeded and mulched or covered with erosion control matting (for slopes steeper than 3:1 or high wind prone areas). Erosion control matting is preferred.
- ☒ Y ☐ N The owner will contact DPW to schedule a stabilization inspection when site work is finished and stabilization measures (seeding and mulching or matting) have been installed.

AGREEMENT

By filling out and signing this plan, I agree to abide by the terms and conditions outlined above. Failure to follow this plan can result in a stop work order by the City of Burlington, fines, or both.

By: ☒ Owner ☐ Contractor

For the University of Vermont & State Agricultural College
LANI RAVIN, AICP

Name

Signature

6/7/2019
Date

Additional Conditions of Approval:

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AN EROSION PREVENTION AND SEDIMENT CONTROL PLAN

FOR THE PROJECT AT:

149 Beaumont Avenue
UVM Larner College of Medicine - New Research Lab

HAS BEEN FILED WITH THE CITY OF BURLINGTON
STORMWATER MANAGEMENT PROGRAM IN ACCORDANCE
WITH CHAPTER 26 OF THE BURLINGTON CODE OF ORDINANCES

THIS REQUIRES THAT MEASURES BE INSTALLED OR TAKEN TO
PREVENT SEDIMENT FROM LEAVING THE SITE AND ENTERING
WATERWAYS AND IMPACTING CITY INFRASTRUCTURE
(RIGHT OF WAY AND STORMDRAINS)

FOR QUESTIONS OR TO REPORT SEDIMENT LEAVING THE SITE
CALL 802-863-4501

This notice to be posted in full view at all times during earth
disturbance. Additional conditions on attached.

Plan Approved by: _____
Burlington Stormwater Program

Date: _____

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TYPICAL SOLUTIONS TO PREVENT OR CONTROL SEDIMENT AND EROSION

STOCKPILES

- Cover small stockpiles with a tarp when not being used.
- Install silt fencing or other appropriate devices around the stockpiles to filter sediment.
- Cover stockpiles with straw or other approved mulching material.
- Plan to remove any unusable material as soon as possible from the site to an approved location.
- Plant grass and mulch stockpiles that will be on site for more than 14 days.
- Cover, vegetate or install erosion matting on stockpiles that will remain disturbed over the winter.

DISTURBED AREAS

- Maintain vegetated buffers around disturbed areas.
- Install silt fencing or other appropriate device to filter sediment washing off from disturbed areas. Remember that the bottom of the silt fence must be "keyed in" (dug into ground) to work correctly.
- To prevent sediment from running off your site via your driveway (or other paved areas where you can't install silt fence) use a row of hay bales or tube sand.
- Cover disturbed areas as soon as possible with straw or other approved mulching material. Use erosion control matting in high wind, traffic or slopes steeper than 3:1 (horizontal to vertical), and follow the manufacturer's guidelines staple the matting down.
- Plant grass and mulch or use erosion control matting all disturbed areas that will remain exposed for more than 14 days.
- Cover, vegetate or install erosion matting on areas that will remain disturbed over the winter.
- Protect ditches, catch basins or water bodies off-site by using silt fencing, gravel check dams or other approved sediment control methods.

CONSTRUCTION VEHICLES

- Do not park construction vehicles on City owned green space. Vehicles disturb vegetation and compact the soil, thereby reducing its ability to infiltrate stormwater. Any green belt disturbance will need to be permanently stabilized with grass seed and erosion control matting.
- Prevent sediment from leaving the project by cleaning the tires of vehicles, or use clean gravel at project access points to clean tires.
- Sweep city streets, sidewalks and bikepaths daily or as needed to remove sediment transported from the project.

RESOURCES

The Vermont Handbook for Erosion Prevention and Sediment Control at:

http://vtwaterquality.org/stormwater/docs/construction/sw_low_risk_site_handbook.pdf

The City of Burlington Stormwater Program Page at

<http://www.burlingtonvt.gov/DPW/Stormwater-Management>

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Stormwater Management Plan Pre-Screening

Please provide the following information to the Stormwater Program (stormwater@burlingtonvt.gov, ph: 863-4501) in order to determine what the requirements will be for your project.

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- General Information
 - Project Address: 149 Beaumont Ave.
 - Owner: University of Vermont
 - Engineer: Krebs & Lansing Consulting Engineers, Inc.
 - Brief project description:

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Construction of a new building addition to the south side of the existing Health Science Research Facility. Construction will include a number of site utilities, driveway, parking and sidewalks improvements, new bike racks, hardscape and landscape improvements

- Stormwater Management Plan
 - Impervious¹ change summary

Condition	Type	Total Impervious (s.f.)
Existing Conditions	Existing Impervious	77,535
Proposed	Total Proposed (1+2+3)	64,710
	1) New ²	7,830
	2) Existing to Remain	16,305
	3) Redeveloped	40,575
Net New	Total Proposed – Existing	-12,825

If available at this time:

- Existing conditions: *description of existing conditions, description of existing stormwater system, existing drainage issues, current connectivity to City system*

The project is located in the UVM East Campus Watershed which drains to Centennial Brook. Runoff from the pipe is collected and piped to the East Campus Stormwater Treatment Facility located east of the UVM Rugby Fields off East Avenue. This treatment facility is currently permitted as a Tier 3 Wet Pond in accordance with the 2017 Vermont Stormwater Management Manual. The site is located south and east of the Health Science Research Facility and primarily located on the existing paved parking lot.

- Proposed Conditions: *description of proposed conditions, brief description of proposed stormwater system, proposed method of discharge to receiving water or City system (overland flow, direct connection via pipe, existing or new manhole or CB)*

The new building addition is located at the south end of the new building. A large portion of the existing parking lot will be restored to landscaping and lawn area. The new, redevelopment, and existing impervious surface within the project site, will continue to be collected and piped to the East Campus Stormwater Treatment Facility. Stormwater will be detained and treated in the facility prior to discharging to Centennial Brook.

¹ Impervious = any surface off of which water runs off rather than infiltrates, including, but not limited to rooftops and paved/unpaved (gravel/packed dirt) driveways, walkways and patios

² Impervious where there is not currently impervious

University of Vermont
Larner College of Medicine – New Research Lab
Erosion Prevention & Sediment Control Narrative
May 23, 2019

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Project Description

The University of Vermont is proposing to construct a research laboratory addition for the Larner College of Medicine. The building will be an expansion to the south end of the existing Health Science Research Facility. The project will include converting a significant amount of pavement to landscaping and lawn areas. Portions of the existing driveways and parking lot will be modified, and new pedestrian access routes will be created.

Construction is anticipated to begin in the spring of 2020 and continue for approximately 24 months. Over the entire construction duration, the project will combine for approximately 2.2 acres of total disturbance. This includes all the project related disturbances, the staging areas, and temporary construction access routes for support activities.

Existing Conditions

The site is located south and east of the existing Health Science Research Facility (HSRF) and includes the parking, walks and limited landscaping north of the adjacent water tower. The site is generally sloping gently, from west to east. Carrigan Drive, which is directly west of the HSRF building, slopes moderately to the north, and is separated from the facility by a retaining wall. The site of the new research laboratory is primarily an existing paved parking lot and loading area. Stormwater for the site is collected and piped to the East Campus Stormwater Treatment Facility.

The site contains soils that are classified or have soil properties consistent with the Covington and Vergennes clays that are mapped adjacent to the east of the project site. These soils have a hydrologic soil group D classification. Typically, these soils with gentle slopes, consistent with the project site, have a slight erosion potential.

Erosion Prevention and Sediment Control Strategies

We have prepared a set of plans (C4.00 – C4.05) outlining the proposed construction sequence along with the erosion prevention and sediment control strategies for each construction season. Because the site is highly developed and space is limited, the primary objectives to this erosion prevention and sediment control design is to minimize duration of exposed soil, manage dewatering activities, install and maintain perimeter sediment controls, and protect inlets of the many existing and proposed catch basins around the site.

During excavation for the building foundation and preliminary utility work, proper dewatering will be the focus of sediment control. A shallow stone lined catch basin sediment trap will be installed and maintained at the north end of the site to allow for any sediment in the pumped water to settle before reaching the stormwater system. As the building foundation and utility trenches are backfilled, the surface will be stabilized with crushed stone. This has been an effective sediment control measure used on multiple projects at UVM.

Much of the site is currently paved so the asphalt will be maintained as long as possible to provide a stable and firm surface for construction vehicles to travel, which minimizes off-site sediment transport. When areas are disturbed for the construction related activities, the surfaces will be stabilized with crushed stone. The stone creates a low maintenance stable surface for the duration of the project.

Because there are so many existing and new catch basins around the site, properly installing and maintaining inlet protection is the next most important sediment control strategy. Primary means of inlet protection within the construction area will include stone lined sumps or raised inlets. Additionally, coir inlet filters will be installed on all inlets as a secondary protection measure.

In addition to the strategies described above, the plans require typical best management practices such as establishing stabilized construction entrances at each construction access location, regular pavement sweeping, perimeter sediment control practices at the down slope limits of disturbed soil, limit size and duration of exposed soils, and stabilization requirements for newly topsoil and seeded areas.

In addition to the best management practices listed above a critical component to stormwater management will be regular inspection and maintenance. The project will require daily review to ensure sediment does not leave the site either through stormwater or dust. In order to minimize soil disturbance, existing paved surfaces that are being preserved, will be swept regularly and water will be applied as necessary to control dust during sweeping, and as the site requires.

In addition to the daily review, the site contractor will be required to formally inspect the installed Best Management Practices at least once a week, and after any rain event that produces a discharge. Any observed deficiencies will be addressed and immediately repaired. As part of the storm inspections the contractor will be required to take turbidity samples of runoff leaving the site as required by the State regulations. At a minimum, Krebs and Lansing will be on site bi-weekly, during active construction, to specifically review erosion and sediment control measures.

Construction Sequence and Disturbance

Whenever feasible, the construction sequencing will be subsequently planned to limit the amount of time soil is disturbed. The area of exposed soils will be limited throughout the project to be less than 5 acres at any time during the summer and less during the winter. The sequence of activities indicated below has been provided based on approximate starting dates. The schedule of construction activities is approximate and may be subject to change due to unpredictable factors that may shift the construction schedule. The approximate project schedule shall be as follows:

Preconstruction – Spring 2020

- Mobilize and install BMP's shown on sheet C-4.00.
- Construct stable staging/storage area, install stone lined sediment trap for dewatering, install temporary stabilized construction entrances and access routes, construct temporary pedestrian paths as necessary, install construction fencing, perimeter sediment control practices, and inlet protection on existing catch basins.

Summer 2020

- Install new deep storm pipe around and through the new building footprint.
- Install new steam, chilled water, and domestic water pipes around the new building footprint.
- Begin excavation for new building foundation construction.
- Install portions of new sewer and stormwater collection system.
- Install new electric and communication conduits.
- Backfill building foundation.
- Possible parking lot construction at the north end of the site.

Winter 2020-2021

- Interior building construction and renovations continue
- Continue site utilities until it becomes impractical due to weather
- Spring 2021 - Begin site hardscape construction

Summer 2021

- Interior building construction and renovations continue
- Complete any remaining utility construction
- Continue site hardscape construction, where possible

Winter 2021-2022

- Interior building construction and renovations are anticipated to be completed over the winter
- Spring 2021
 - o Begin site hardscape construction around the building
 - o Begin site grading and subgrade prep around the building

Spring 2022

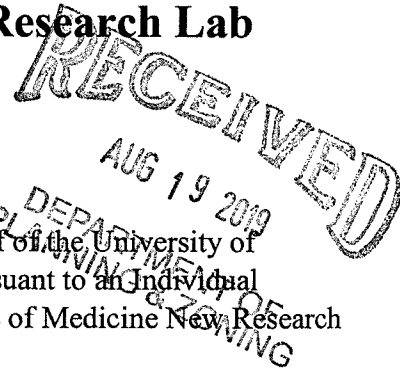
- Continue hardscape construction, final grading, and site restoration.
- Remove project fencing, demobilization, and clean-up.
- Final Stabilization.
- Clean Sumps of catch basins that collected stormwater runoff from construction activities.
- Remove Sediment Control Practices.

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Attachment 1: Narrative, Location Map, and Soils Map
University of Vermont
Larner College of Medicine – New Research Lab
& Jeffords Hall Shed

July 1, 2019



1. Introduction

Krebs & Lansing Consulting Engineers, Inc is writing on behalf of the University of Vermont to apply for a State Stormwater Discharge Permit pursuant to an Individual Discharge Permit for the University of Vermont Larner College of Medicine New Research Lab project and the Jeffords Hall Shed project.

2. Project Description

The University of Vermont is proposing to construct a research laboratory addition for the Larner College of Medicine. The building will be an expansion to the south end of the existing Health Science Research Facility. The project will include converting a significant amount of pavement, north of the building, to landscaping and lawn areas. Portions of the existing driveways and parking lot will be modified, and new pedestrian access routes will be created.

The University is also proposing to install a new 10'x12' storage shed at the northwest corner of Jeffords Hall. The roof will have solar panels that will provide electricity to charge maintenance equipment.

The existing impervious on the site was previously permitted in accordance with the 2002 Stormwater Management Manual. A total of 1.78 acres of existing impervious, which was previously permitted under the amendment application for the UVM MS4 permit 7028-9014.A, is included within the project site area. With the conversion of pavement to vegetation, 0.47 acres will be removed and the existing impervious will be reduced to 1.31 acres. The project will add 0.18 acres of new/expanded impervious which will result in an overall net reduction of 0.29 acres of impervious.

Runoff from all of the projects are collected and piped to the East Campus Stormwater Treatment Facility for treatment prior to discharging to Centennial Brook. Because Centennial Brook is impaired for Stormwater, coverage under an Individual permit is required.

3. Existing Condition

The new research lab site is located south and east of the existing Health Science Research Facility (HSRF) and includes the parking, walks and limited landscaping north of the adjacent water tower. The site is generally sloping, gently, from west to east. Carrigan

Drive, which is directly west of the HSRF building, slopes moderately to the north, and is separated from the facility by a retaining wall. The site of the new research laboratory is primarily an existing paved parking lot and loading area. Stormwater for the site is collected and piped to the East Campus Stormwater Treatment Facility.

The Jeffords Hall Shed site is located at the northwest corner of the building. The grades are gentle to moderately sloping from east to west.

The site contains soils that are classified or have soil properties consistent with the Covington and Vergennes clays that are mapped adjacent to the east of the project site. These soils have a hydrologic soil group D classification. Typically, these soils with gentle slopes, consistent with the project site, have a slight erosion potential.

4. Existing Stormwater System

Both sites are located in the East Campus Watershed. Over 80 acres of watershed runoff is collected and piped to the East Campus Stormwater Treatment Facility located east of the UVM Rugby Fields off East Avenue. This treatment facility is a Tier 3 Wet Pond that was designed to meet the water quality and quantity treatment standards from the 2002 Vermont Stormwater Management Manual. The facility has recently been permitted (3627-INDS.6) to meet the 2017 Stormwater Management Manual. Centennial Brook is a cold water fish habitat which is impaired for stormwater. The practice has been maintained and is in compliance with existing permit requirements.

5. Proposed Stormwater System:

- a) **Description of Impervious Area:** The site area of the two projects include 0.18 acres of new/expanded impervious and 1.31 acres of existing previously permitted impervious.
- b) **Receiving Body:** The projects discharge to Centennial Brook (S/N 001).
- c) **Fish Habitat Designation for Receiving Water:** Centennial Brook is designated a cold water fish habitat as defined by the Vermont Water Quality Standards.
- d) **Description of compliance with each of the treatment standards in the 2017 VSMM including the treatment practices or waivers used to meet each of the following standards:**
 - i) **Post-Construction Soil Depth and Quality Standard:** A Stabilization and Post Construction Soil Restoration Plan has been created for the project (Sheet C4.05). The plan outlines the areas of the site that must meet the Post Construction Soil Depth and Quality Standard, including locations for post construction test holes. The plans also outline the four options available to the site contractors for compliance with the Standard.
 - ii) **Groundwater Recharge Standard:** This standard is waived because all of the soils within the project site are consistent with the adjacent mapped Covington and Vergennes clays, which have a hydrologic soil group (HSG) D classification.
 - iii) **Water Quality Treatment Standard (WQv):**
 - (1) S/N 001: Runoff from the existing impervious that was previously permitted and treated to the 2002 VSMM standards, is being directed to the East Campus

Stormwater Treatment Facility prior to discharging to Centennial Brook (S/N 001). The practice is defined as a Tier 3 Wet Extended Detention Pond. Water Quality Treatment is provided within this practice through permanent pool and extended detention treatment.

Under the 2017 VSMM, any new projects that are attempting to rely on an existing Tier 3 practice for Water Quality Treatment must evaluate ways to improve water quality treatment and/or runoff reduction. For this project, the site has been designed to restore 0.47 acres of existing impervious to vegetation. This is approximately two and a half times more than the new/expanded impervious proposed for the project (0.18 acres). This removal of impervious provides both runoff reduction and improved water quality from the existing conditions.

iv) **Channel Protection Standard (CPv):**

- (1) **S/N 001:** The Channel Protection Treatment Standard is met using the Extended Detention Method through the East Campus Stormwater Treatment Facility. The existing 6.75" primary orifice has been designed to provide the required cold water 12-hour centroid to centroid detention for the 1-year 24 hour storm event. The modeling calculations for this standard have been provided in the Attachment #4.

Overbank Flood Protection Standard (Q_{P10}):

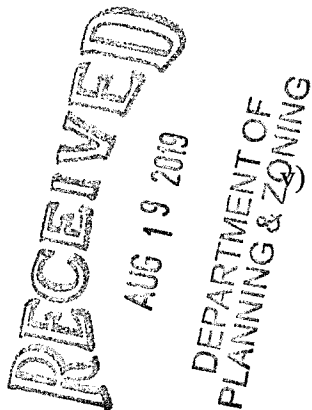
- (1) **S/N 001:** A pre-development hydrologic model was created to ensure runoff from the post-development 10 year, 24-hour storm event does not exceed the existing pre-development flows for the same storm event. The pre-development model was created considering the site under natural conditions. All previously permitted areas within the watershed were modeled as woods in good condition. The pond outlet structure has been designed to control the post-development runoff from the 10 year, 24 hour storm. The modeling calculations have been provided in Attachment 4.

- Pre-development (Natural Conditions) 10 year, 24-hour storm = 85.53 c.f.s.
- Post-development 10 year, 24-hour storm = 37.45 c.f.s.

vi) **Extreme Flood Protection Standard (Q_{P100}):**

- (1) **S/N001:** The University of Vermont post 2002 expanded impervious within the Centennial Brook Watershed has exceeded 10 acres. The East Campus Watershed is therefore subject to the Extreme Flood Protection Standard.

A 2002 existing conditions hydrologic model was created to ensure runoff from the post-development 100 year, 24 hour storm event does not exceed the pre-development (2002) flows for the same storm event. The pre-development model was created considering the existing conditions prior to any expanded impervious



after 2002. The PondPack hydrologic modeling results indicate that the pond outlet structure will control the post-development runoff from the 100 year, 24 hour storm to a level less than that of the 2002 pre-development 100 year, 24 hour storm. The calculations have been provided in the Attachment #4.

Pre-development (2002 conditions) 100 year, 24 hour storm = 179.03 c.f.s.

Post-development 100 year, 24 hour storm = 109.10 c.f.s.

The following items are attached for review:

- **Complete NOI form**
- **Attachment 1: Narrative:** Narrative, Location Map, and Soils Map.
- **Attachment 2: Workbooks:** STP Selection Tool and Standards Compliance Workbook
- **Attachment 3: Worksheets:** STP and waiver worksheets, grouped by discharge point
- **Attachment 4: Modeling:** Runoff modeling and calculations demonstrating compliance with the applicable treatment standards.
- **Attachment 5: Plans:** Pertinent plan sheets with all required information outlined in Part 7 of the Application Requirements for Operational Permit Document.
- **A check in the amount of \$ 680.00 Payable to “State of Vermont”.**

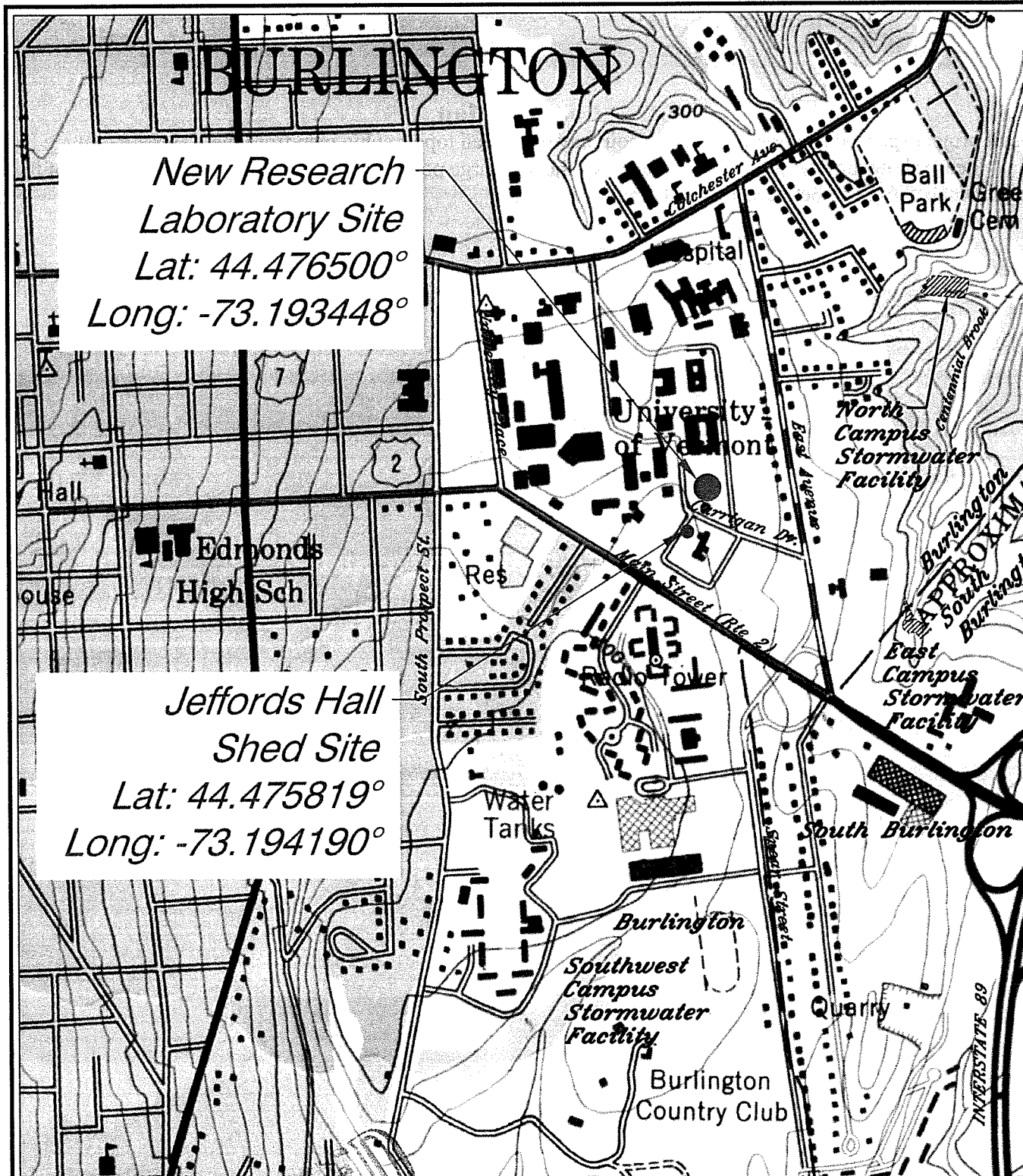
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Location Map

[Insert project specific location map here. You may download topographic map from the Natural Resource Atlas. Please show the site outline, the location of the discharge point(s) and receiving waters. The scale of the location map should be between 1:20,000 and 1:40,000.]

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FIGURE 1
LOCATION MAP

DATE: 7-1-19



SCALE: 1" = 1000'

University of Vermont
 New Research Laboratory - Larner College of Medicine
 Burlington, Vermont

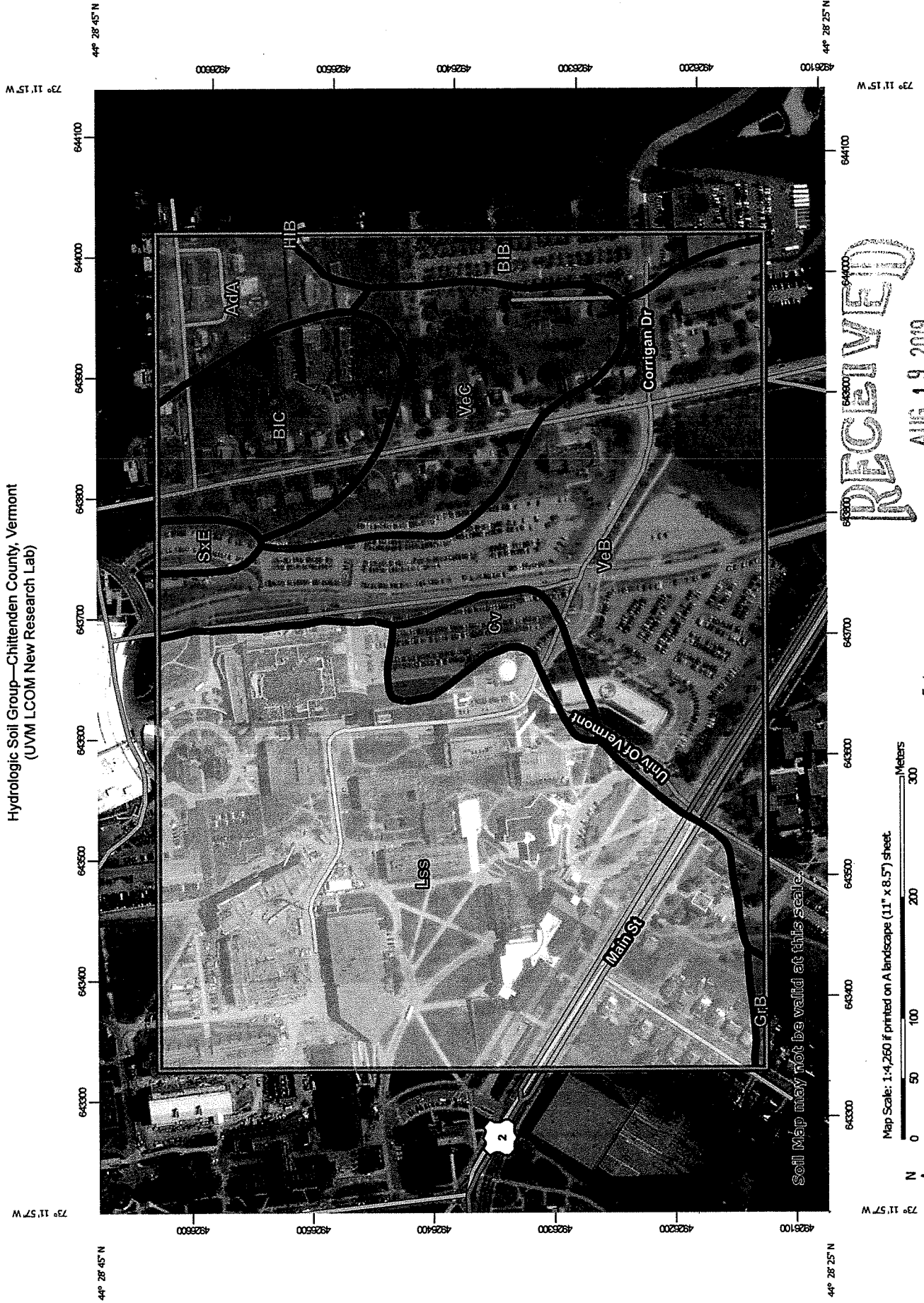
Soils Map

[Insert project specific soils map here. Soils information can be found at the Web Soil Survey website. Hydrologic Soil Groups— “HSGs” shall be overlaid with site outline. Soils information can also be provided as a data layer on an existing or proposed condition plan sheet (if included as a data layer on one of the plan sheets please indicate that here)]

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Hydrologic Soil Group—Chittenden County, Vermont
(UVM LCOM New Research Lab)



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Map Scale: 1:4,260 if printed on A landscape (11" x 8.5") sheet.

MAP LEGEND

Area of Interest (AOI)			
Area of Interest (AOI)		C	
		C/D	
		D	
		Not rated or not available	
Soils			
Soil Rating Polygons			
A			
A/D			
B			
B/D			
C			
C/D			
D			
Not rated or not available			
Soil Rating Lines			
A			
A/D			
B			
B/D			
C			
C/D			
D			
Not rated or not available			
Soil Rating Points			
A			
A/D			
B			
B/D			

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Chittenden County, Vermont
Survey Area Data: Version 21, Sep 17, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 28, 2012—Mar 29, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

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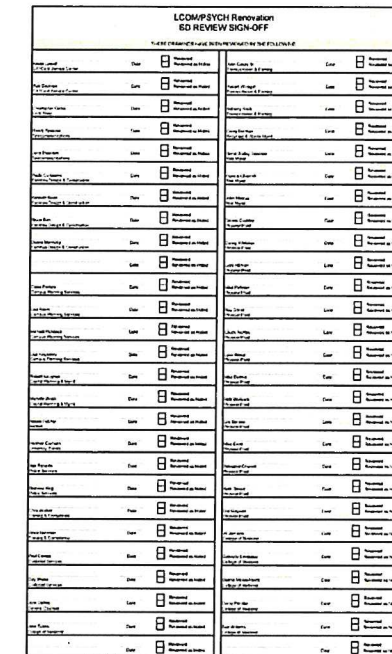
Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AdA	Adams and Windsor loamy sands, 0 to 5 percent slopes	A	3.5	4.0%
BIB	Belgrade and Eldridge soils, 3 to 8 percent slopes	C/D	3.6	4.2%
BIC	Belgrade and Eldridge soils, 8 to 15 percent slopes	C/D	6.8	7.9%
Cv	Covington silty clay	D	2.4	2.8%
GrB	Groton gravelly fine sandy loam, 5 to 12 percent slopes	A	0.3	0.3%
HIB	Hartland very fine sandy loam, 2 to 6 percent slopes	B	0.0	0.0%
Lss	Limit of detailed soil survey		37.8	43.6%
SxE	Stockbridge and Nellis soils, 15 to 60 percent slopes, extremely stony	C	0.8	1.0%
VeB	Vergennes clay, 2 to 6 percent slopes	D	23.4	27.0%
VeC	Vergennes clay, 6 to 12 percent slopes	D	8.0	9.3%
Totals for Area of Interest			86.7	100.0%

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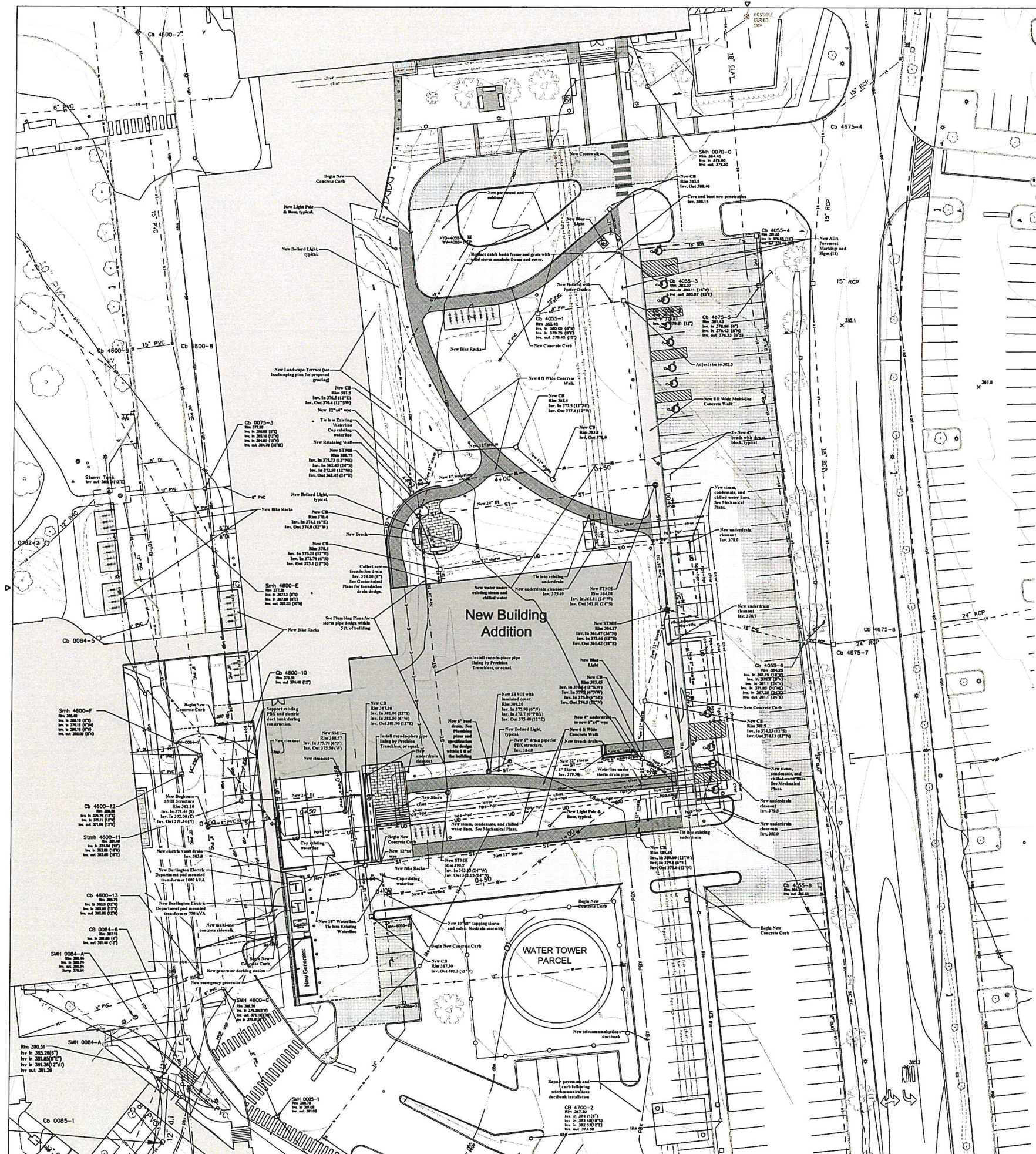
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LARNER COLLEGE OF MEDICINE

Overall
Utility Plan

Drawing Scale 1" = 20'	
Project Number 39126 00	
Date Issued	

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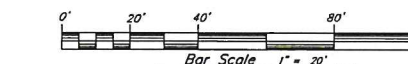


Legend (See Sheet EX1.0 for existing conditions Legend)

- | | |
|--|-------------------------------------|
| | Proposed blue phone |
| | New light pole and base |
| | Inlet protection around catch basin |
| | Preconstruction Excavation |
| | Finish Grade Spot Grade Elevation |
| | Finish Grade Direction of Flow |

- 100
- New Finish Grade Contour
- G— New Gas Line/Valve
- S— New Sewer Line/Manhole
- TW— New Sewer Forcemain
- ST— New Storm Line/Manhole/Basin
- UG— New Underdrain
- FD— New Footing Drain - See Structural
- RD— New Roof Drain
- W— New Water Line/Hydrant/Valve/Shutoff
- PBX— New PBX Line/Manhole
- New Concrete/Granite Curb
- New Loading Dock Chain-link fence
- New Building

- | | |
|---|--|
|  | New Driveway |
|  | New pavement and subbase |
|  | New Heavy Duty Concrete |
|  | New Concrete Walk |
|  | New Multi-Use Concrete walk |
|  | New Concrete Pad at Exterior Door |
|  | Pavement Repair - Remove existing and replace with new |
|  | New Pavers - See Landscaping Plans |



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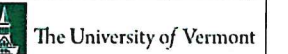
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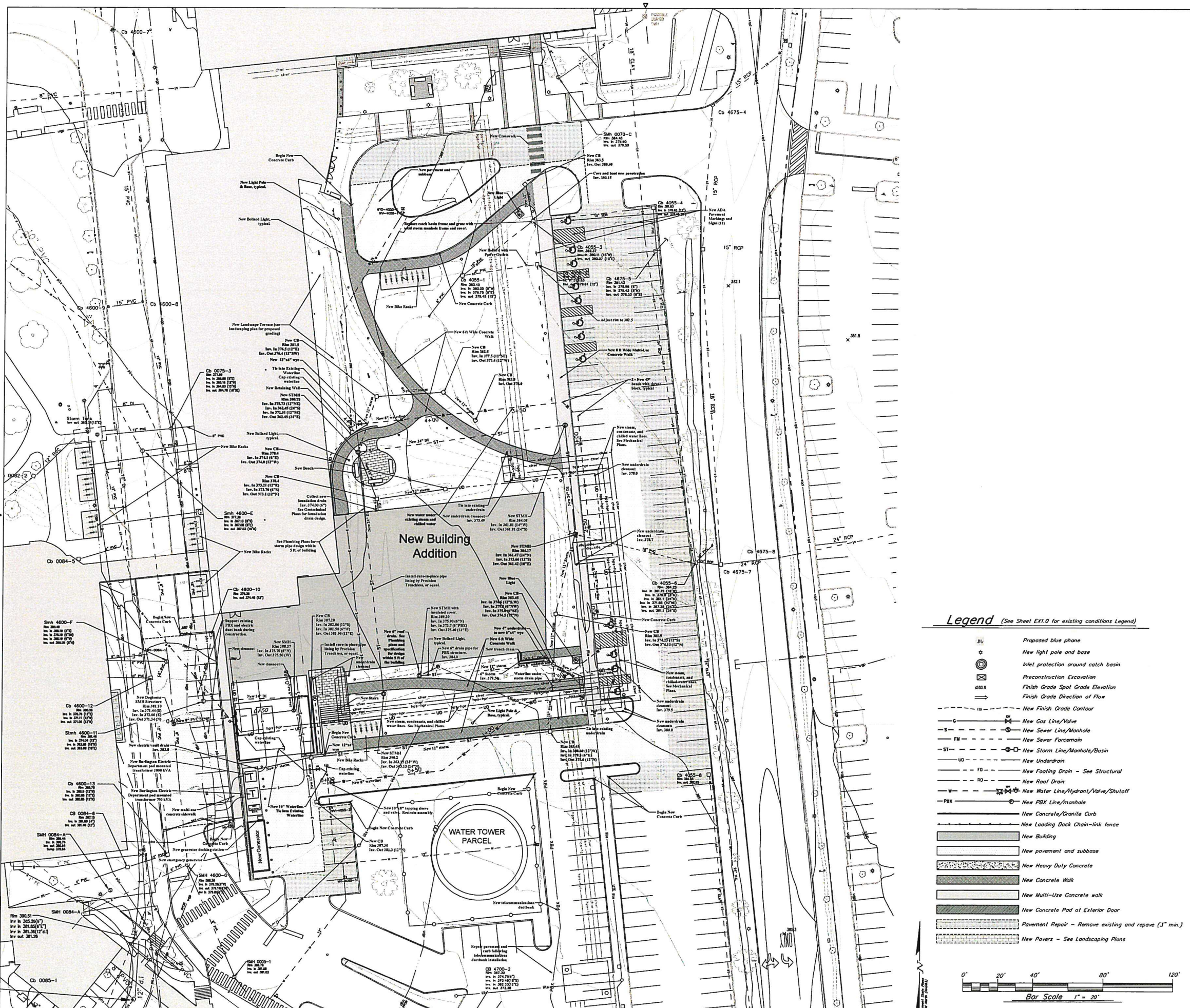
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Project Number	
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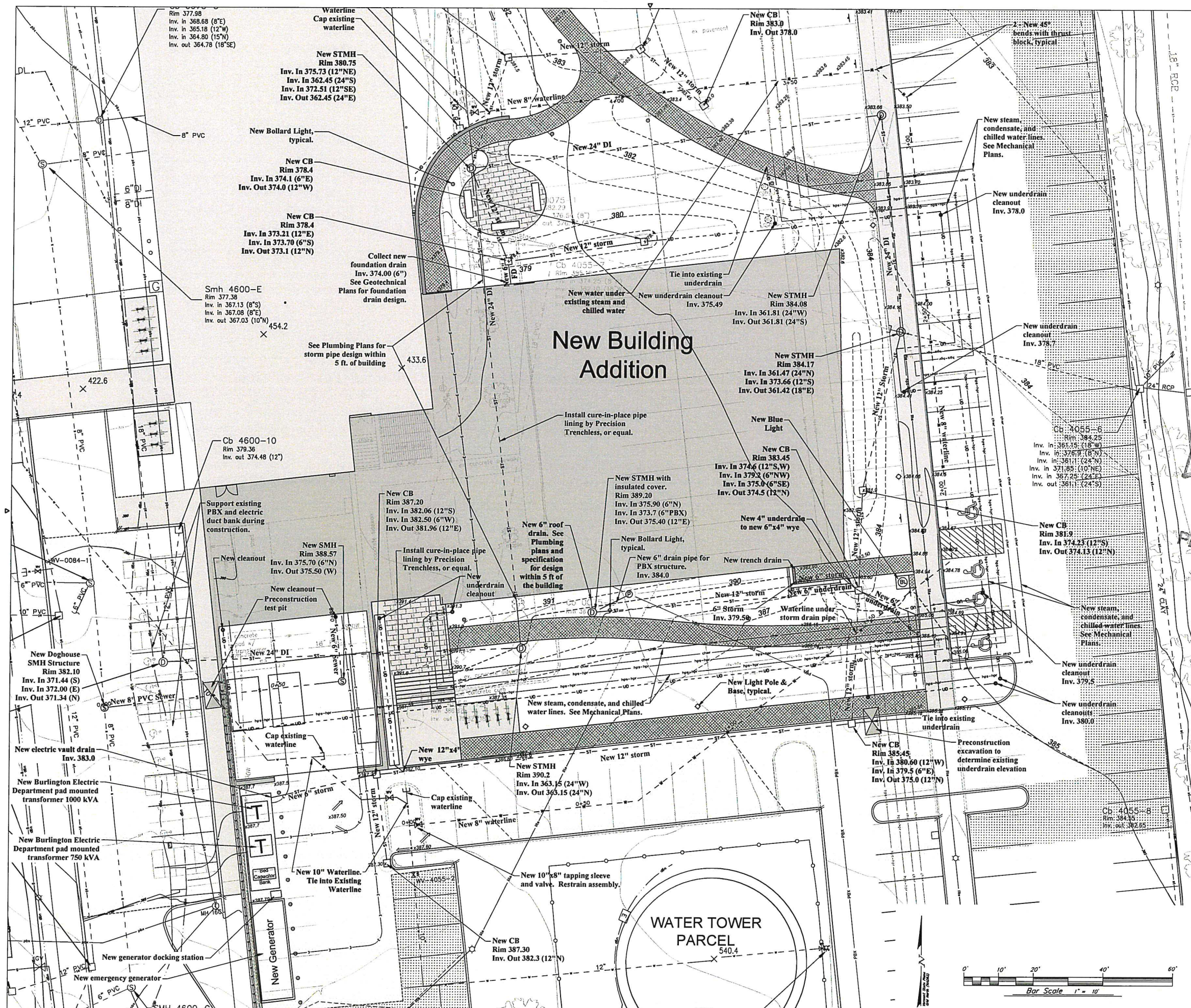
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**Civil Site &
Utility Plan**

Drawing Scale	
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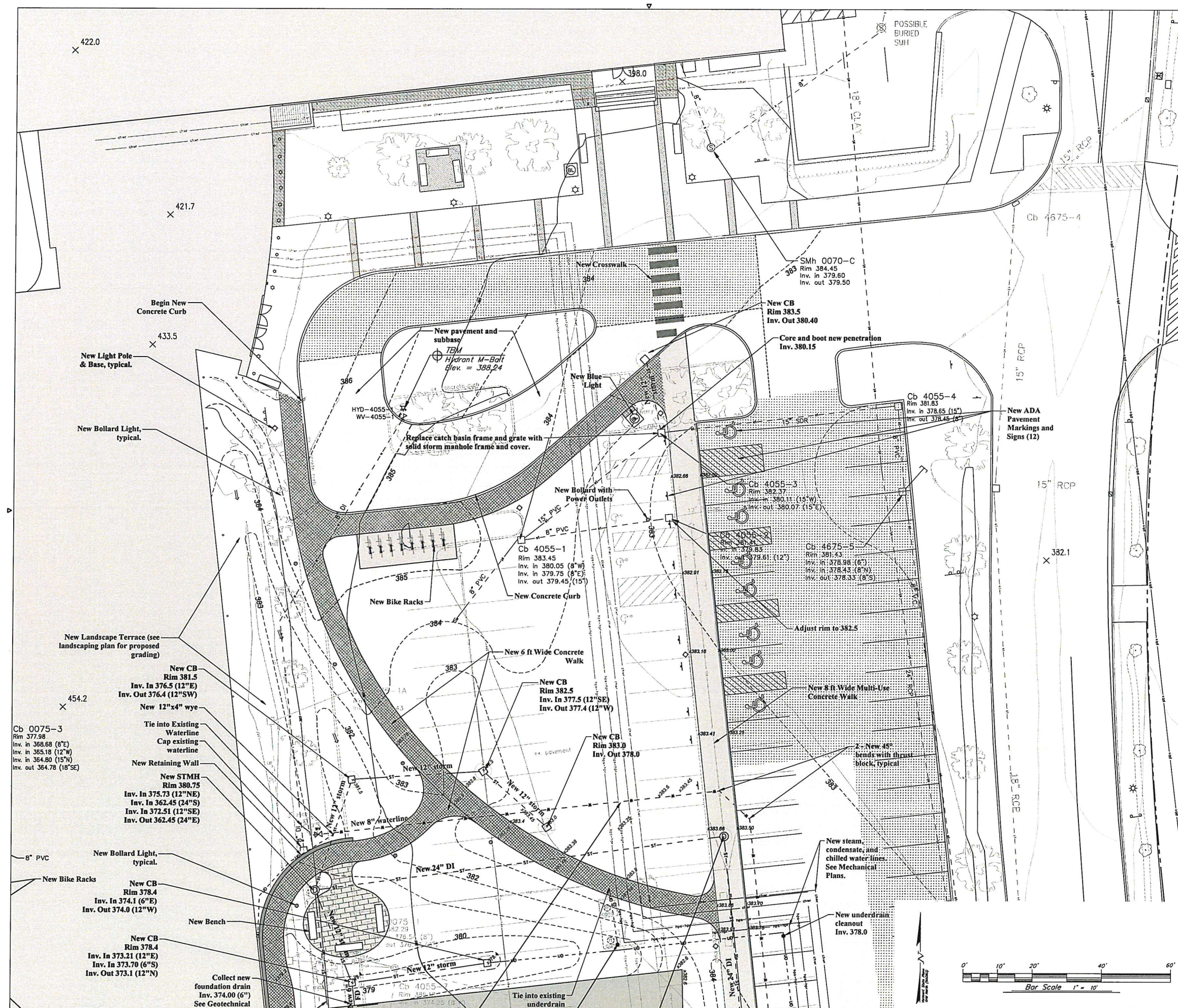
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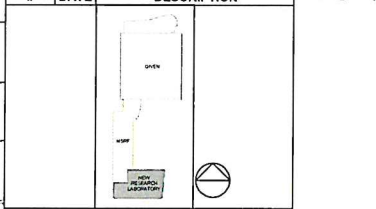
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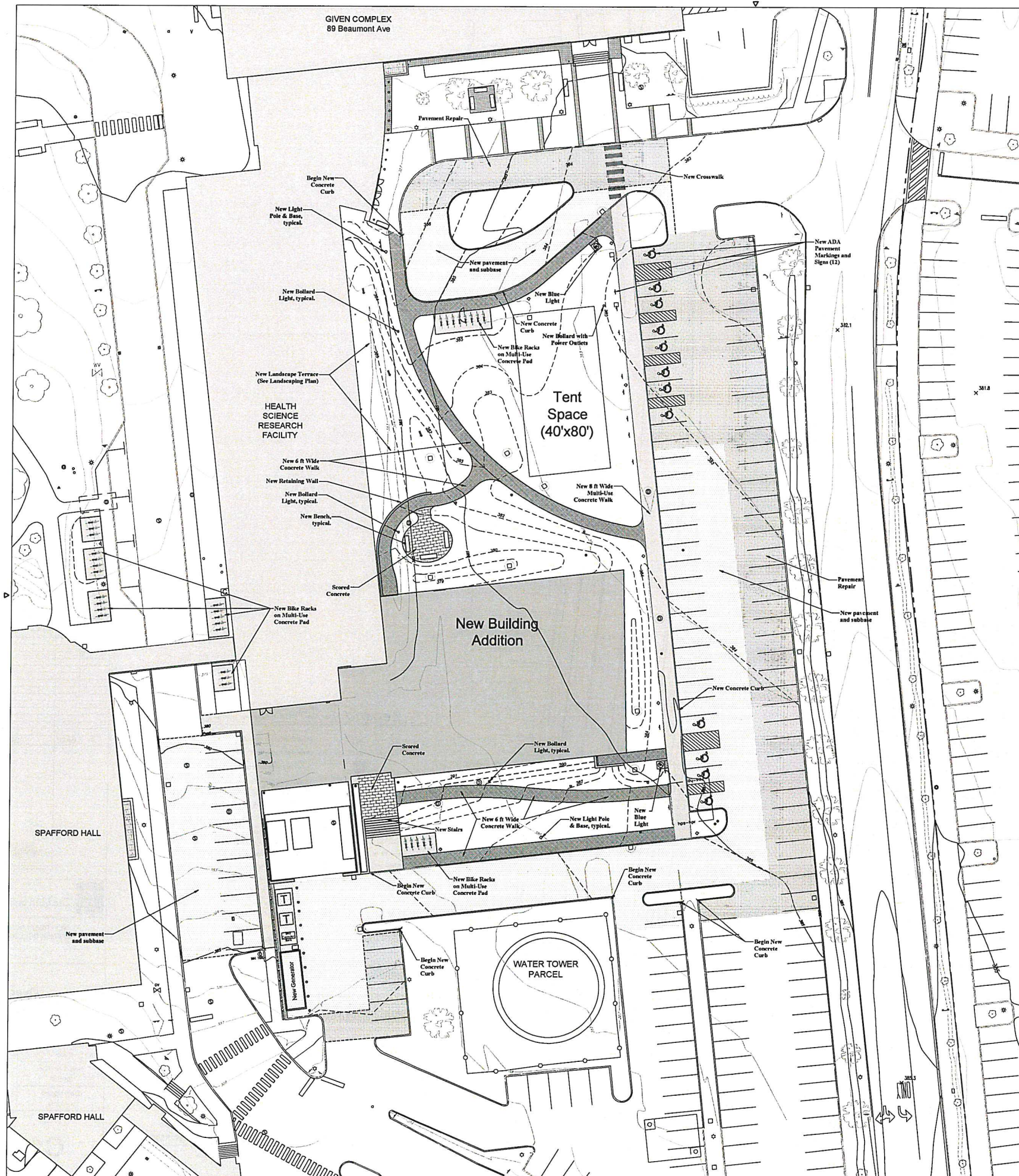
Civil Site & Utility Plan

Drawing Scale
1" = 10'

Project Number	39126.00
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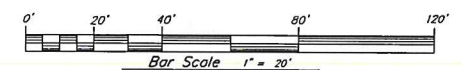


NOTES

- The Contractor shall be responsible for repairing all disturbed areas back to original condition, including but not limited to curbing, sidewalks, road, parking areas, landscaping, site lighting, electrical, and etc. All asphalt shall be sawcut prior to paving.
- All stumps, rock, and other non-approved trench backfill material discovered during construction is the exclusive property of the Contractor and shall be removed from UVM property and disposed of in a State approved disposal location. All existing soils reused for fill shall conform to all applicable sections of VTRANS specifications Section 203-Excavation & Embankments. Contractor shall review soil investigation report and soils logs prior to bid. Any soil reused as fill under roads and applicable concrete sidewalks shall pass a subgrade proof roll with a loaded tandem. Fill soils that do not pass a subgrade proof roll shall be removed and replaced at the Contractor's expense.
- All passing sieve, proctor, and compaction testing expenses shall be paid by Owner. Testing coordination, all other required testing, and expenses for failed tests shall be the Contractor's responsibility.
- The Contractor shall contact the Burlington Electric Department prior to any work in the vicinity of the existing electric conduits.
- This project requires coverage under an Individual Construction Stormwater Discharge Permit and the City of Burlington Standard Erosion Prevention & Sediment Control Permit. The Contractor shall be the On-site Coordinator for the project and shall be responsible for all required inspections (minimum weekly and after any storm event that produces a discharge), turbidity readings, maintenance, and reporting. The On-Site Plan Coordinator shall be required to provide a turbidity meter for the project. The Contractor shall be responsible for installing, maintaining and removing all erosion and sediment control devices shown on the plans or details and, to the maximum extent practical, to minimize potential contamination of stormwater runoff from the construction activities.
- Contractor shall be responsible for all "As-built" measurement and drafting requirements as outlined on the Detail Sheets. All trench excavations shall remain open until all as-built survey shots have been taken. Progress Record Drawings shall be submitted to the Engineer as indicated in the Record Drawing specifications.
- See Erosion Control and Logistics Plans for locations of staging / storage areas.
- The Contractor shall be responsible for all construction barrier/safety fencing required for the project.
- Definition of "Preconstruction Excavation" for these contract documents shall be: The site contractor shall expose utilities and obtain all necessary information, including but not limited to, invert elevation, size, depth, pipe type, joint location, etc. Contractor shall transmit survey the location and elevations of the utility. Contractor shall provide the engineer with sketches indicating horizontal and vertical information of pipe or conduit type and size, cross-section information, concrete encasement information (top and bottom elevations, width, etc.), joint location, etc. of each required existing underground utility. Accuracy of horizontal location is within 1 foot, and accuracy of vertical elevation is within 0.02 ft. (1/4"). Coordinate all excavation with City, Owner, and Engineer. Preconstruction excavations shall occur prior to ordering structures and prior to utility construction to facilitate redesign and/or design confirmation.
- The location of the preconstruction excavation symbols does not necessarily indicate the location of the buried utility. It is the responsibility of the Contractor to find and expose the utility.
- Contractor shall include 10 preconstruction excavations in addition to the ones shown on the drawings.
- Contractor shall be responsible for importing topsoil as required to complete the project. Contractor shall test topsoil for approval by the Owner and Engineer.
- The Contractor shall be responsible for all signage and fencing necessary to providing safe vehicular and pedestrian access through or around the site during construction.
- All sewer and storm pipes shall be PVC SDR 35 unless otherwise noted.
- Core and boot all existing structures unless otherwise noted.
- All new catch basins and sanitary sewer manholes must have one 6" precast concrete grade ring.
- Contractor shall contact UVM Risk Management Training and Compliance office for any work involving contact with asbestos cement pipe.
- Temporary groundwater, stormwater, and sewer by-pass pumping and/or diversion is the responsibility of the Contractor. The Contractor is responsible for providing all necessary pumps and equipment to perform the work. Overnight pumping is not allowed.
- All sidewalks shall have 2% maximum cross slope.
- Contractor to pin concrete sidewalks/slabs to all contact points with stairs, building, bike slab, retaining walls, etc.
- Contractor shall maintain full occupancy and fire department access to all surrounding buildings. Coordinate all temporary access with the University representative.
- Removal of all erosion control matting and inlet protection is the responsibility of the Contractor.
- At the end of the project, clean the sumps of all new and existing catch basins and storm manholes within the project limits.
- Electrical, lighting and PBK lines are shown for illustrative/coordination purposes only. Refer to Electrical plans and specifications for design.
- Refer to Plumbing plans for sewer and storm design within five feet of the building.
- Refer to Plumbing and/or Fire Protection plans for waterline design within five feet of building.
- There are existing PBK conduits located in the vicinity of this project. The Contractor shall contact UVM Telecommunications and Network Services (555-3330) prior to any work in the vicinity of the PBK conduit. The Contractor shall carefully excavate around the PBK conduit to prevent damage to the PBK infrastructure. Contractor shall be responsible for placing Owner supplied locator balls over exposed conduits prior to backfilling.

Legend (See Sheet EX1.0 for existing conditions Legend)

- | | |
|-----|--|
| RL | Proposed blue phone |
| ○ | New light pole and base |
| ⊙ | Inlet protection around catch basin |
| ⊠ | Preconstruction Excavation |
| ⊠ | Finish Grade Spot Grade Elevation |
| → | Finish Grade Direction of Flow |
| --- | New Finish Grade Contour |
| --- | New Gas Line/Valve |
| --- | New Sewer Line/Manhole |
| --- | New Sewer Forcemain |
| --- | New Storm Line/Manhole/Basin |
| --- | New Underdrain |
| --- | New Footing Drain - See Structural |
| --- | New Roof Drain |
| --- | New Water Line/Hydrant/Valve/Shutoff |
| --- | New PBK Line/manhole |
| --- | New Concrete/Granite Curb |
| --- | New Loading Dock Chain-link fence |
| --- | New Building |
| --- | New pavement and subbase |
| --- | New Heavy Duty Concrete |
| --- | New Concrete Walk |
| --- | New Multi-Use Concrete walk |
| --- | New Concrete Pad at Exterior Door |
| --- | Pavement Repair - Remove existing and repave (3" min.) |
| --- | New Pavers - See Landscaping Plans |



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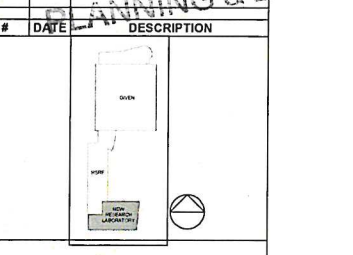
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Overall Site Plan

Drawing Scale

1" = 20'

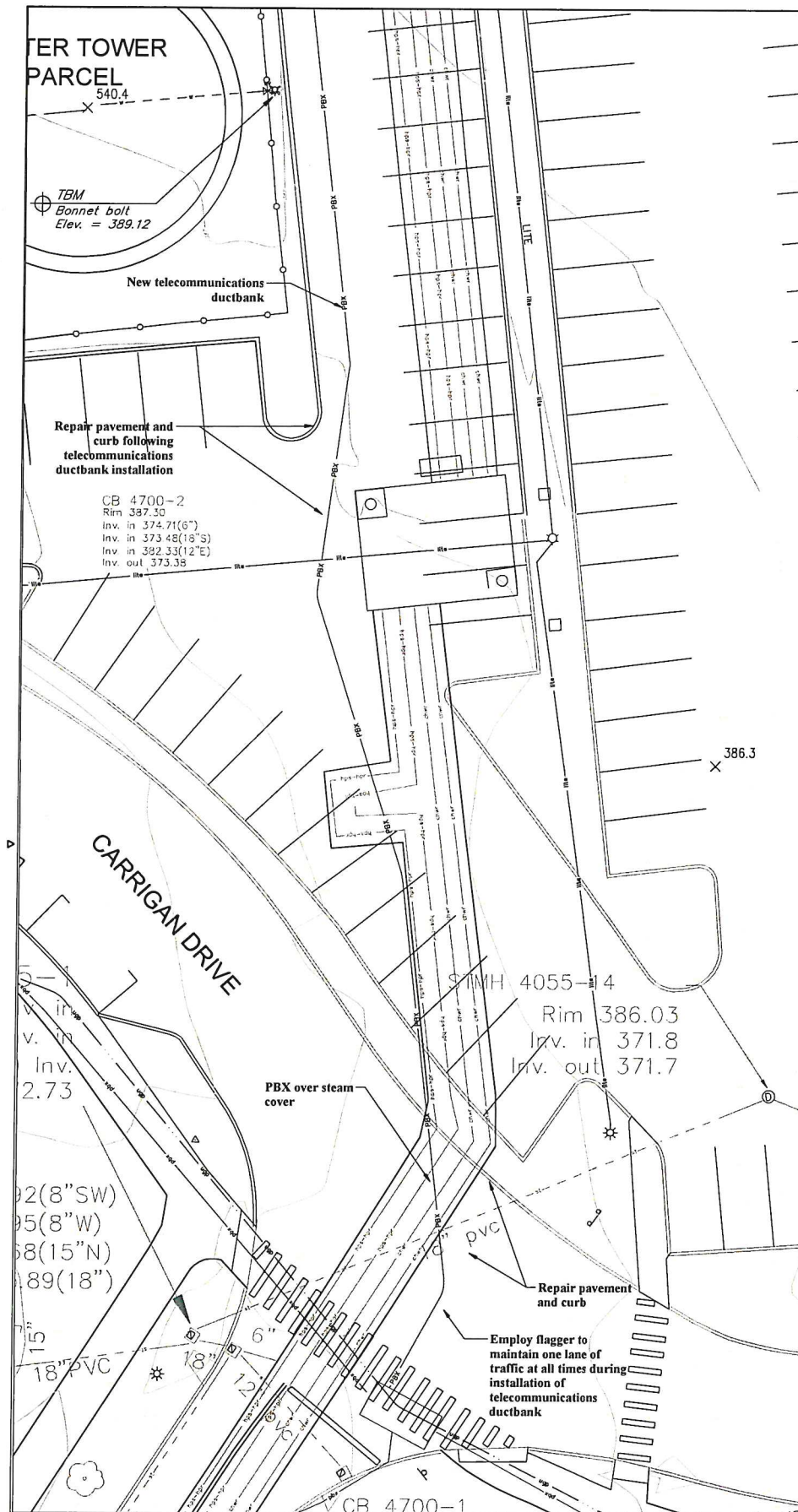
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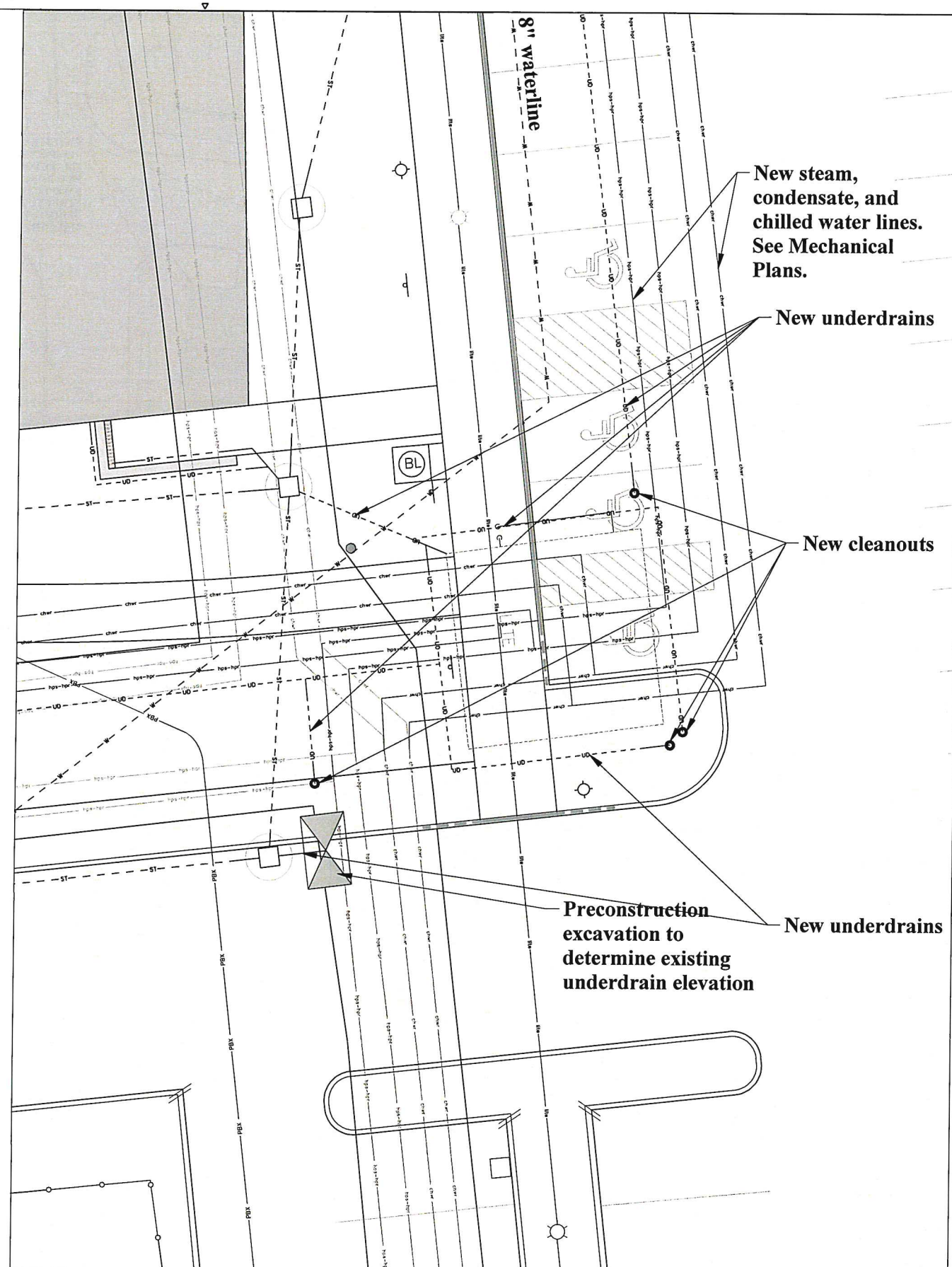
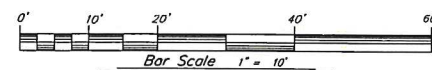
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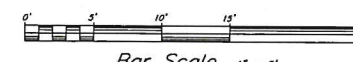
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Enlarged Utility Plan



Enlarged Utility Plan



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DEPARTMENT
PLANNING &

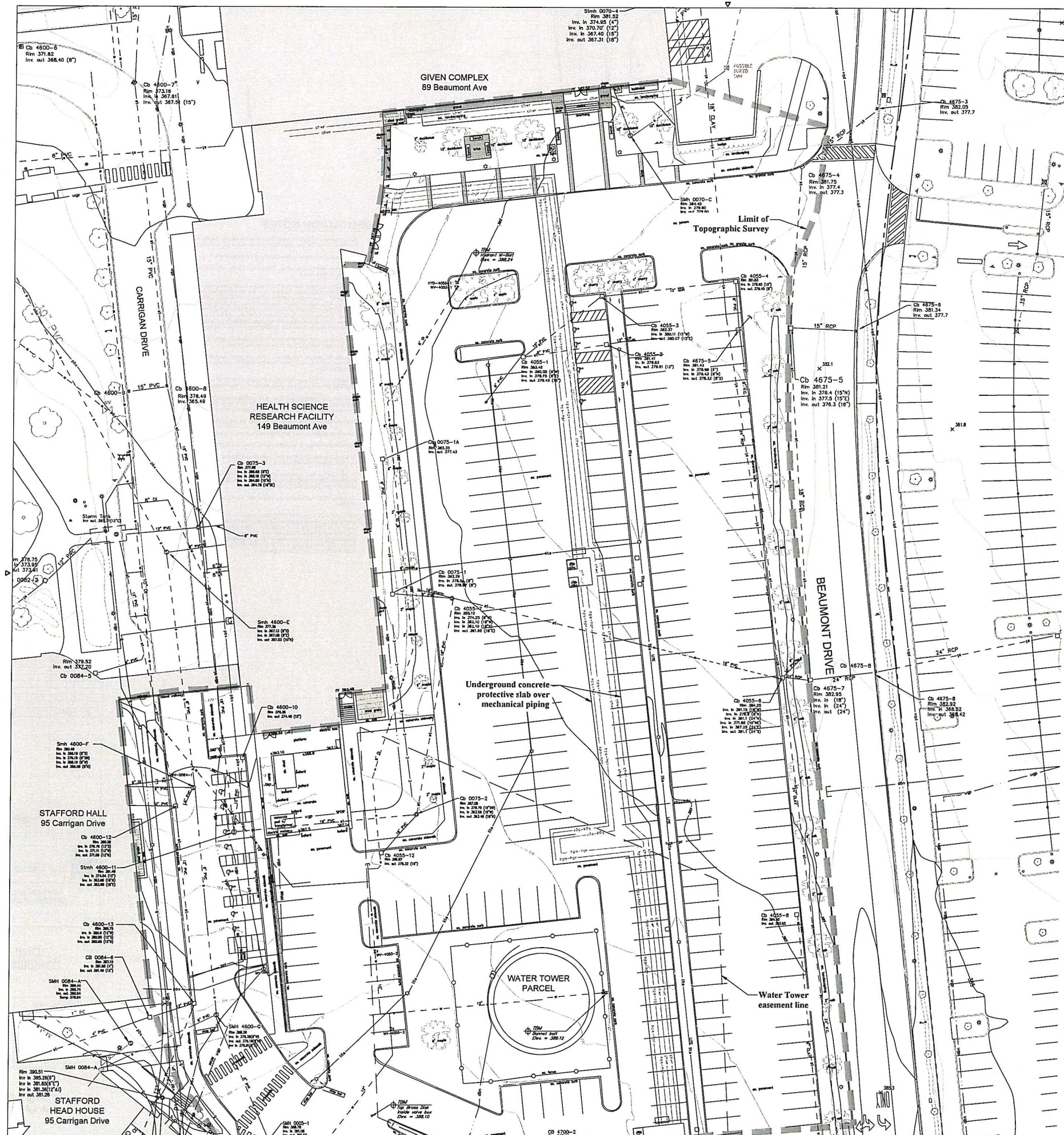
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1		Drawn
2		Check
3		Revise
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9		Revise
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19		Revise
20		Revise

The University of Vermont
NEW RESEARCH LABORATORY
LARNER COLLEGE OF MEDICINE

Civil Site &
Utility Plan

Drawing Scale	Varies
Project Number	39126.00
Date Issued	08/15/2010

C1.04



- Notes**
- This plan is not a boundary survey. Property line shown are based on digital information provided by UVM are considered approximate.
 - The underground utilities shown on this plan are based on visible utilities located during a topographic survey performed by Krebs & Lansing in April 2014 and the following:
 - Electric: Electrical lines are based on plans prepared by Burlington Electric Department titled, "FANC - UVM North Campus System Upgrade Site Plan," dated 07/05/07, digital utility mapping provided by Fletcher Allen, and limited dig safe markings located during the survey. Limited secondary electric and site lighting electric is shown based on Utility Master Plan mapping provided by UVM. Other secondary and site lighting electrical may be present on site and is not warranted to be exact or complete.
 - Water: Waterlines are based on visible evidence found during the survey and digital utility mapping provided by the University of Vermont.
 - Sewer: Sanitary sewer mains are shown from manholes to manholes as located during the survey. Sanitary service lines are shown based on digital utility mapping provided by the University of Vermont. Storm pipe elevations, type, and sizes were measured during the survey. Pipe information is not always evident from visual observations. Prior to making connections to the existing sanitary system and prior to ordering materials, the Contractor shall be responsible for confirming all pipe information.
 - Storm: Storm pipes are shown from manholes to manholes as located during the survey. Stormwater service lines are shown based on digital utility mapping provided by the University of Vermont. Storm pipe elevations, type, and sizes were measured during the survey. Pipe information is not always evident from visual observations. Prior to making connections to the existing storm system and prior to ordering materials, the Contractor shall be responsible for confirming all pipe information.
 - PBX: PBX telecommunications conduits are based on Utility Master Plan digital mapping provided by the University of Vermont.
 - Steam: Steam lines are based on Record drawings and Utility Master Plan digital mapping provided by the University of Vermont.
 - Underground utilities are approximate and not warranted to be exact or complete. Dig Safe shall be contacted prior to any excavation. DigSafe may not mark private utilities. It is the Contractor's responsibility to mark private utilities (other than PBX). Secondary electric is not shown on this plan.
 - Elevations are based on the NAVD 88 vertical datum measured in US Survey feet.
 - Project Horizontal Coordinates derived from GPS observation using reference frame NAD83 (2011) 2010.00 epoch.
 - Building roof lines are taken from orthophoto topography by the Sells Mapping Company.

Legend

- Survey Control Point
- Existing Sign
- Existing Light Pole
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Spot Grade Elevation
- Existing Sewer Line/Manhole
- Existing Storm Line/Manhole/Basin
- Existing Underground Power
- Existing PBX Line
- Existing Select-A-Code Line
- Existing Site Light Line
- Existing Steam Line
- Existing Condensate Line
- Existing Chilled Water Supply
- Existing Chilled Water Return
- Existing HVAC duct
- Existing Water Line/Hydrant/Valve/Shutoff
- Existing Grade Contour
- Limit of Topographic Survey

Bar Scale 1" = 20'

0' 20' 40' 80' 120'

PAYETTE

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The University of Vermont

NEW RESEARCH LABORATORY
LARNER COLLEGE OF MEDICINE

Existing Conditions Plan

Drawing Scale
1" = 20'

Project Number
39126.00

Date Issued
08/15/2019

C2.00

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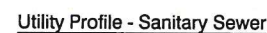
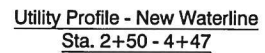
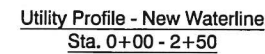
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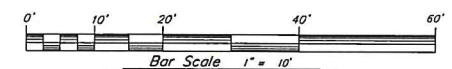
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1. Existing utility locations shown on this plan are approximate and may not show all existing utilities. Contractor shall verify location and elevation of all existing utilities prior to beginning utility work. The Contractor shall notify Engineer of field located utilities that differ from the plans. The Contractor shall coordinate with gas, electric, communications, etc. to avoid conflicts.
2. Existing utilities that are exposed shall be located by the Contractor in accordance with the AS-BUILT requirements outlined in the Details and Specifications.



C5.00

The Contractor will be responsible for all construction of water main, storm and sanitary sewer systems as shown on the plans. The Contractor will be responsible for all necessary adapters, fittings, etc. to make connections to the existing and proposed units. The Contractor shall be responsible for all work shown or implied on the plans and/or referenced in the specifications and permits. The Contractor shall submit, for approval by the Engineer, all types of materials and products used.

1. The Contractor shall coordinate all work on the water supply system with the Owner, Burlington Water Department and the Civil Engineer. All water installation work and water distribution materials must comply with the current Burlington Water Department (BWD) specifications.
2. These plans provide design and details of water main beyond 5 ft. outside the building. The Site Contractor shall be responsible for extending the waterline to the plumbing and/or fire system connection within the building. See Plumbing Engineer and/or Fire Protection plans for scope, design and specifications within 5 ft. of the building.
3. Contractor shall provide all necessary fittings and appurtenances to complete the waterline construction work. This includes temporary fittings and gauges necessary to safely complete the flushing activities required prior to making connections with building plumbing.
4. The project shall be constructed, completed, maintained, and operated in accordance with the approved plans. No changes shall be made in the project without the written approval of the appropriate BWD supervisor or Engineer. A copy of the final approved plans shall be submitted to the department prior to construction of the water system improvements.
5. The BWD shall be notified in advance to inspect all mechanical joints, fittings, main line taps, appurtenances, thrust blocks, water line crossings, and testing prior to occurrence or backfilling.
6. All domestic services and fire sprinkler systems that are connected to the public water system shall be protected with a backflow prevention assembly, and an appropriate thermal expansion system. The Mechanical Contractor shall coordinate approved backflow prevention with the BWD.

1. The pipe for water main shall conform to AWWA C-900-07, DR-14, ductile iron O.D. pressure pipe. Fittings shall conform to AWWA C110, 350 pounds working pressure. Valves shall be manufactured to meet all requirements of AWWA specification C509 or C515. Tracer wire shall be placed over the water line and shall extend from gate valve curb box to curb box or other approved above grade termination.

2. All pipe shall be installed in accordance with AWWA C600. The pipe shall be kept free of foreign matter and debris during installation. The pipe shall be kept free of any pipe tying has stopped, any open ends of pipe shall be plugged. There shall be a minimum of 6'-0" (1.82 m) cover over all pipe. All pipe shall be installed in accordance with AWWA C600. The pipe shall be kept free of foreign matter and debris during installation. Backfill materials and procedures shall be as detailed on the drawings. The Contractor shall be responsible for any and all shoring and/or shoring necessary to comply with OSHA - VOSH regulations.

3. The testing of the water main shall consist of the testing of all installed pipe, services and hydrants in accordance with AWWA C600. The testing shall consist of a pressure test and leakage test. All testing shall be done with potable water and in the presence of the Engineer and representative of the City of San Jose. The testing shall be done with a minimum of 200 psi (13.8 bar) internal pipe pressure of 200 psi for two (2) hours. The testing allowance shall be defined as the maximum quantity of makeup water that is added into a pipeline undergoing hydrostatic pressure testing, or any valued section thereof, in order to maintain pressure within the required test pressure. The testing shall be done with a minimum of 200 psi (13.8 bar) internal pipe pressure. No pipe installation will be accepted if the quantity of makeup water is greater than that determined by the following formula:

L = testing allowance (makeup water), in gallons per hour
 S = length of pipe tested, in feet
 D = Nominal pipe diameter, in inches
 P = average test pressure during the hydrostatic test, in pounds per square inch (gauge)

4. Chlorinating of the system shall be accomplished after the water main has been successfully pressure tested and thoroughly flushed. Disinfection shall be in accordance with AWWA C-651. The disinfecting process shall be deemed acceptable only after two consecutive sets of acceptable samples, taken from the flushed and disinfected main 24 hours apart, shows no evidence of bacteriological contamination. For disinfection use minimum 25 mg/l chlorine concentration for 24 hours; the concentration must remain above 10 mg/l until disinfecting is not acceptable.
5. All taps larger than 1" require the use of bronze saddles. **SADDLES ARE REQUIRED FOR ALL TAPS ON PVC PIPE.**
6. All brass unions and adapters shall be low-leak by Cambridge. All corporations and curb stops shall be Cambridge with nitrile gaskets.
7. **AFTER TWO PASSING BACTERIOLOGICAL SAMPLES ARE OBTAINED, ALL TAPS FOR CHLORINATION AND TESTING SHALL BE CLOSED AND PLUGGED PRIOR TO BACKFILL.**
8. The water main shall be thoroughly flushed to remove foreign materials from the new water system (minimum flow velocity of 2.5 ft/s required by AWWA). At least 48 hours prior to waterline flushing, Contractor shall notify the City of Burlington Water Dept., UVM Physical Plant Dept., UVM Health Center and Engineer.

1. The testing of the water main shall consist of the testing of all installed valves, services and hydrants in accordance with NFPA 24. The testing shall consist of a pressure test and leakage test. All testing shall be done with potable water and in the presence of the Engineer. The pressure test consists of maintaining a minimum internal pipe pressure of 200 psi (140,820 kN/m²) for two (2) hours. The amount of leakage of the joints shall not exceed 2 g/psi per 100 gallons or joints, respectively of pipe diameter. If the pressure drops more than 5 psi (3515 kN/m²) in the first hour, this constitutes failure of the test for the particular section of pipe. Failure of any test section will necessitate repair and/or replacement of the failed section.

2. Chlorinating of the system shall be accomplished after the water main has been successfully pressure tested and thoroughly flushed. Disinfecting shall be in accordance with AWWA C-651. The disinfecting process shall be deemed acceptable only after two samples of water from the flushed disinfected main within 24 hours of the completion of the disinfecting process. The minimum 23 mg/l chlorine concentration for 24 hours. The chlorine concentration must remain above 10 mg/l. Table disinfecting is not acceptable.

3. Acceptable water main flushing requirements are provided below. Prior to flushing, the Contractor shall contact the Owner, Fire Department in the municipality, UWM Physical Plant Dept., the UWM Medical Center, and the Engineer.

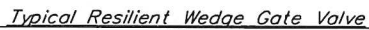
The flushing operation shall be continued for a sufficient time to ensure thorough cleaning.

The minimum rate of flow shall be not less than one of the following:

- (1) Hydraulically calculated water demand flow rate of the system, including any hose requirements. (provided by the mechanic/sprinkler consultant)
- (2) Flow necessary to provide a velocity of 10 ft/sec (3.1 m/sec) in accordance with the table
- (3) Maximum flow rate available to the system under fire conditions.



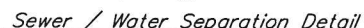
1. *Gale valves shall be meet all requirements of A.W.M.A. C500 and AS15 Standards (latest edition). Valves with mechanical joints of sizes as required on the plans.*
2. *All valves shall be of cast or ductile iron body and shall be coated with fusion bonded epoxy complying with AWWA C-550 and be NSF 61 approved. Valve shall have manufacturer's name, pressure rating, and manufacture date cast on the body.*
All valves shall include non-rising stem, high strength bronze stem and nut, and cast bronze 1" or 2" rigid stem. Seals above and below the (thrust) collar, a 2" square operating nut, mechanical joint ends, and corrosion resistant stainless steel body bolts and nuts.
3. *City of Burlington gate valves shall open clockwise (right) and be designed for a minimum working pressure of 200 psi.*
4. *Valves shall be equipped with a two piece, sliding type cast iron valve box for a minimum 6 ft. of cover material.*



1. See thrust block detail for additional information.
2. Prior to pouring thrust blocks, all fittings are to be wrapped with 4 mil. polyethylene.

N.T.S.

- NOTES:**
1. The location of sewer/storm mains in relation to water mains shall be in accordance with the Vermont Water Supply Rules.
 2. Sanitary sewers, manholes, force mains and storage tanks shall be at least 10 feet horizontally from any existing or proposed water main. Storm sewers and manholes shall be at least 5 feet horizontally from any existing or proposed water main. The distance shall be measured edge to edge. If this distance cannot be obtained variance shall be approved by the ANR Drinking Water & Groundwater Protection Division.
 3. 18" separation shall be maintained whether water is over or under sewer. If this distance cannot be obtained, then a solid 20 ft. long pipe sleeve may be installed centered on the project. This may be done with approval from the Engineer and the ANR Drinking Water & Groundwater Protection Division.
 4. A minimum separation of 25 ft. shall be maintained between waterlines and underground storage tanks. 50 ft. separation is preferred, if possible.



SEWER CRUSHING NOTE

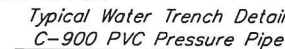
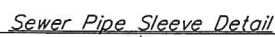
For all sanitary sewer and storm sewer pipes that cross the waterline within the required 18" vertical separation the pipe shall be installed in a continuous 20 ft. long sleeve pipe centered on the waterline. Contractor shall take extra precautions to ensure the design grades of the sewer pipe are maintained.

New PVC SDR 35 sanitary or storm sewer pipe.

Wing ends of sewer pipe Minfl 140M, or approved fabric. Typical both sides.

Secure fabric to

Maintain sewer



MTC



- | Note | Section | Anchorage of Valves | Elevation |
|---|---------|---------------------|-----------|
| 1. A thrust block shall be installed at all waterline benches, and caps, and tees. | | | |
| 2. Precast thrust blocks shall be used but concrete must be poured between back of concrete block and undisturbed soil. | | | |
| 3. Red-mix concrete (2,500 psi min) must be used where concrete is specified. Saturated is NOT acceptable. | | | |
| 4. Use Digging pipe restrofor for C-900 PVC at all fittings. | | | |

Thrust Block Details

N.T.S.

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The University of Vermont

NEW RESEARCH LABORATORY
LARNER COLLEGE OF MEDICINE

Civil Details

Drawing Scale

Not to Scale

Project Number

39126.00

Date Issued

08/15/2019

C6.01

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General Notes

1. ALL CONTRACTORS ARE REQUIRED TO CONTACT DIG SAFE, THE MUNICIPALITIES PUBLIC WORKS DEPARTMENT, AND ANY OTHER PUBLIC OR PRIVATE AGENCIES NECESSARY FOR UTILITY LOCATION PRIOR TO ANY CONSTRUCTION.
2. UNDERGROUND UTILITIES MAY EXIST THROUGHOUT THE PROJECT SITE AND MUST BE LOCATED PRIOR TO CONSTRUCTION. WHERE UNDERGROUND UTILITIES EXIST, FIELD ADJUSTMENT MUST BE APPROVED BY A REPRESENTATIVE OF THE OWNER PRIOR TO INSTALLATION. NEITHER THE OWNER NOR THE LANDSCAPE ARCHITECT ASSUMES ANY RESPONSIBILITY WHATSOEVER, IN RESPECT TO THE CONTRACTORS ACCURACY IN LOCATING THE INDICATED ELEMENTS ON THE DRAWINGS.
3. THE LANDSCAPE ARCHITECT AND CONSULTANTS DO NOT WARRANT OR GUARANTEE THE ACCURACY AND COMPLETENESS OF THE WORK PRODUCT THEREIN BEYOND A REASONABLE DILIGENCE. IF ANY MISTAKES, OMISSIONS, OR DISCREPANCIES ARE FOUND TO EXIST WITH THE WORK PRODUCT, THE LANDSCAPE ARCHITECT SHALL BE PROMPTLY NOTIFIED SO THAT THEY MAY HAVE THE OPPORTUNITY TO TAKE ANY STEPS NECESSARY TO RESOLVE THE ISSUE. FAILURE TO PROMPTLY NOTIFY THE OWNER AND THE LANDSCAPE ARCHITECT OF SUCH CONDITIONS SHALL ABSOLVE THEM FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES OF SUCH FAILURE. ACTIONS TAKEN WITHOUT THE KNOWLEDGE AND CONSENT OF THE OWNER AND THE LANDSCAPE ARCHITECT, OR IN CONTRADICTION TO THE OWNER AND THE LANDSCAPE ARCHITECTS WORK PRODUCT OR RECOMMENDATIONS, SHALL BECOME THE RESPONSIBILITY NOT OF THE OWNER AND THE LANDSCAPE ARCHITECT BUT FOR THE PARTIES RESPONSIBLE FOR THE TAKING OF SUCH ACTION.
4. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT OF ANY DISCREPANCIES AS SOON AS THEY ARE DISCOVERED AND PRIOR TO ANY ACTION BY THE CONTRACTOR.

Tree Protection

1. EXISTING TREES TO REMAIN SHALL BE PROTECTED WITH TEMPORARY CONSTRUCTION FENCE. ERECT FENCE AT EDGE OF THE TREE DRIPLINE PRIOR TO START OF CONSTRUCTION.
2. CONTRACTOR SHALL NOT OPERATE VEHICLES WITHIN THE TREE PROTECTION AREA. CONTRACTOR SHALL NOT STORE VEHICLES OR MATERIALS, OR DISPOSE OF ANY WASTE MATERIALS, WITHIN THE TREE PROTECTION AREA.
3. DAMAGE TO EXISTING TREES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY A CERTIFIED ARBORIST AT THE CONTRACTOR'S EXPENSE.

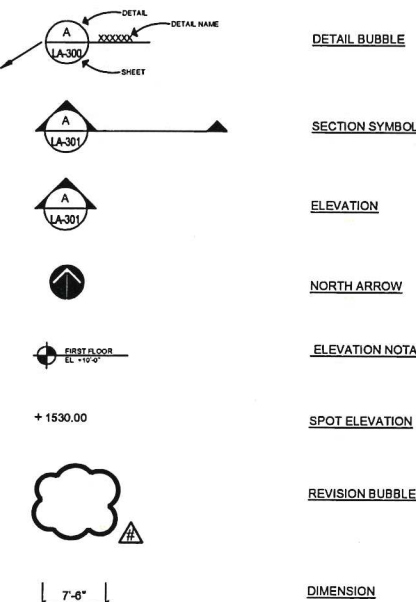
Layout Notes

1. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO CHECK WITH THE LANDSCAPE ARCHITECTURAL DRAWINGS BEFORE INSTALLATION OF CONSULTANT WORK. ANY WORK INSTALLED IN CONFLICT WITH ANY OF THE DRAWINGS SHALL BE CORRECTED AT NO EXPENSE OF THE OWNER OR DESIGN CONSULTANTS.
2. ALL SYMBOLS, ABBREVIATIONS AND MATERIAL INDICATIONS ARE CONSIDERED TO BE CONSTRUCTION STANDARDS. IF THE CONTRACTOR HAS QUESTIONS REGARDING THEIR EXACT MEANING, THE CONTRACTOR SHALL REQUEST THAT THE LANDSCAPE ARCHITECT ISSUE A CLARIFICATION.
3. DO NOT SCALE DRAWINGS. DIMENSIONS MISSING FROM PLANS OR NEEDED FOR EXECUTION OF THE WORK SHALL BE CLARIFIED OR PROVIDED BY THE LANDSCAPE ARCHITECT BEFORE THE WORK IS INSTALLED.
- a. ALL DIMENSIONS ARE TO FACE OF FINISH MATERIAL, UNLESS OTHERWISE NOTED.
- b. TAKE ALL DIMENSIONS PERPENDICULAR TO ANY REFERENCE LINE, WORK LINE, CENTERLINE, OR FACE OF BUILDING/STRUCTURE.
- c. ALL DIMENSIONS CALLED OUT AS "EQUAL" ARE CONSIDERED EQUIDISTANT MEASUREMENTS.
4. REFERENCE TO NORTH IS TRUE NORTH.
5. REFERENCE TO SCALE IS FOR FULL SIZED DRAWINGS, NOT REDUCED PLANS. DO NOT SCALE FROM DRAWINGS.
6. ANY CONFLICTS IN WHICH THE METHODS OR STANDARDS OF INSTALLATION OR MATERIALS SPECIFIED DO NOT EQUAL OR EXCEED THE REQUIREMENTS OF THE LAWS OR ORDINANCES GOVERNING THE PROJECT, THE LAWS AND ORDINANCES SHALL TAKE PRECEDENCE. NOTIFY THE LANDSCAPE ARCHITECT OF ALL CONFLICTS.
7. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS AND NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONDITIONS VARYING FROM INFORMATION HEREIN PRIOR TO PROCEEDING WITH WORK.
8. TO ESTABLISH LANDSCAPE ARCHITECTURAL INTENT, EVERY ATTEMPT HAS BEEN MADE TO IDENTIFY MOST CONDITIONS

Planting Notes

1. ALL PROPOSED PLANTING LOCATIONS SHALL BE STAKED AS SHOWN ON THE PLANS FOR FIELD REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
2. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL BELOW GRADE AND ABOVE GROUND UTILITIES AND NOTIFY OWNERS REPRESENTATIVE OF CONFLICTS.
3. NO PLANT MATERIALS SHALL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA. CONTRACTOR SHALL NOTIFY OWNERS REPRESENTATIVE OF ANY CONFLICT.
4. A 3-INCH DEEP MULCH PER SPECIFICATION SHALL BE INSTALLED UNDER ALL TREES AND SHRUBS. AND IN ALL PLANTING BEDS, UNLESS OTHERWISE INDICATED ON THE PLANS, OR AS DIRECTED BY OWNER'S REPRESENTATIVE.
5. ALL TREES SHALL BE BALLED AND BURLAPPED, UNLESS OTHERWISE NOTED IN THE DRAWINGS OR SPECIFICATION, OR APPROVED BY THE OWNER'S REPRESENTATIVE.
6. FINAL QUANTITY FOR EACH PLANT TYPE SHALL BE AS GRAPHICALLY SHOWN ON THE PLAN. THIS NUMBER SHALL TAKE PRECEDENCE IN CASE OF ANY DISCREPANCY BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND ON THE PLAN. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLANT LIST AND PLANT LABELS PRIOR TO BIDDING.
7. ANY PROPOSED PLANT SUBSTITUTIONS MUST BE REVIEWED BY LANDSCAPE ARCHITECT AND APPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE.
8. ALL PLANT MATERIALS INSTALLED SHALL MEET THE SPECIFICATIONS OF THE "AMERICAN STANDARDS FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND CONTRACT DOCUMENTS.
9. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL ACCEPTANCE.
10. AREAS DESIGNATED "LOAM & SEED" SHALL RECEIVE MINIMUM 6" OF LOAM AND SPECIFIED SEED MIX. LAWNS OVER 2:1 SLOPE SHALL BE PROTECTED WITH EROSION CONTROL FABRIC.
11. ALL DISTURBED AREAS NOT OTHERWISE NOTED ON CONTRACT DOCUMENTS SHALL BE LOAM AND SEEDED OR MULCHED AS DIRECTED BY OWNER'S REPRESENTATIVE.
12. THIS PLAN IS INTENDED FOR PLANTING PURPOSES. REFER TO SITE / CIVIL DRAWINGS FOR ALL OTHER SITE CONSTRUCTION INFORMATION.
13. ALL TREE, SHRUB AND PERENNIAL PLANTING BEDS ARE TO BE CONTINUOUS, COMPLETELY DUG OUT AND BACKFILLED WITH THE PROPER PLANTING BED BACKFILL MATERIAL TO DEPTH SPECIFIED IN DETAILS AND SOIL PREPARATION SPECIFICATION.
14. IF THE LANDSCAPE CONTRACTOR PROPOSES A SUBSTITUTE PLANT SPECIES, ALL SUBSTITUTES NEED TO BE APPROVED BY THE LANDSCAPE ARCHITECT AND CITY OF SOUTH BURLINGTON IN WRITING PRIOR TO ORDERING.

LANDSCAPE ARCHITECTURAL SYMBOLS



LANDSCAPE DRAWING ABBREVIATIONS

@	AT	HP	HIGH POINT
AD	AREA DRAIN	HT	HEIGHT
AL	ALIGN	I.D.	INSIDE DIAMETER
ALT	ALTERNATE	LP	LOW POINT
ASPH	ASPHALT	MAX	MAXIMUM
BC	BOTTOM OF CURB	MFR	MANUFACTURER
BLDG	BUILDING	MIN	MINIMUM
BS	BOTTOM OF STEP	NIC	NOT IN CONTRACT
BW	BOTTOM OF WALL	O.C.	ON CENTER
CB	CATCH BASIN	O.D.	OUTSIDE DIAMETER
CJ	CONTROL JOINT	QTY	QUANTITY
CL	CENTERLINE	R	RADIUS
CONC	CONCRETE	REINF	REINFORCED
CONST	CONSTRUCTION	REQ	REQUIRED
CONT	CONTINUOUS	SPECS	SPECIFICATIONS
CTR	CENTER	SS	STAINLESS STEEL
DIA	DIAMETER	STD	STANDARD
DIM	DIMENSION	TD	TRENCH DRAIN
DWG	DRAWING	TC	TOP OF CURB
EA	EACH	TS	TOP OF STEP
EJ	EXPANSION JOINT	TW	TOP OF WALL
ELEV	ELEVATION	Typ	TYPICAL
EOP	EDGE OF PAVEMENT	U.O.N.	UNLESS OTHERWISE NOTED
EQ	EQUAL	VIF	VERIFY IN FIELD
EW	EACH WAY	W/	WITH
FC	FLUSH CURB	W/O	WITHOUT
FF	FINISH FLOOR	WWF	WELDED WIRE FABRIC

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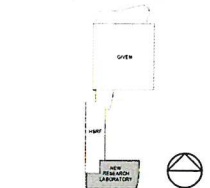
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Code Consultant

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DATE DESCRIPTION



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GENERAL NOTES
& ABBREVIATIONS

Drawing Scale

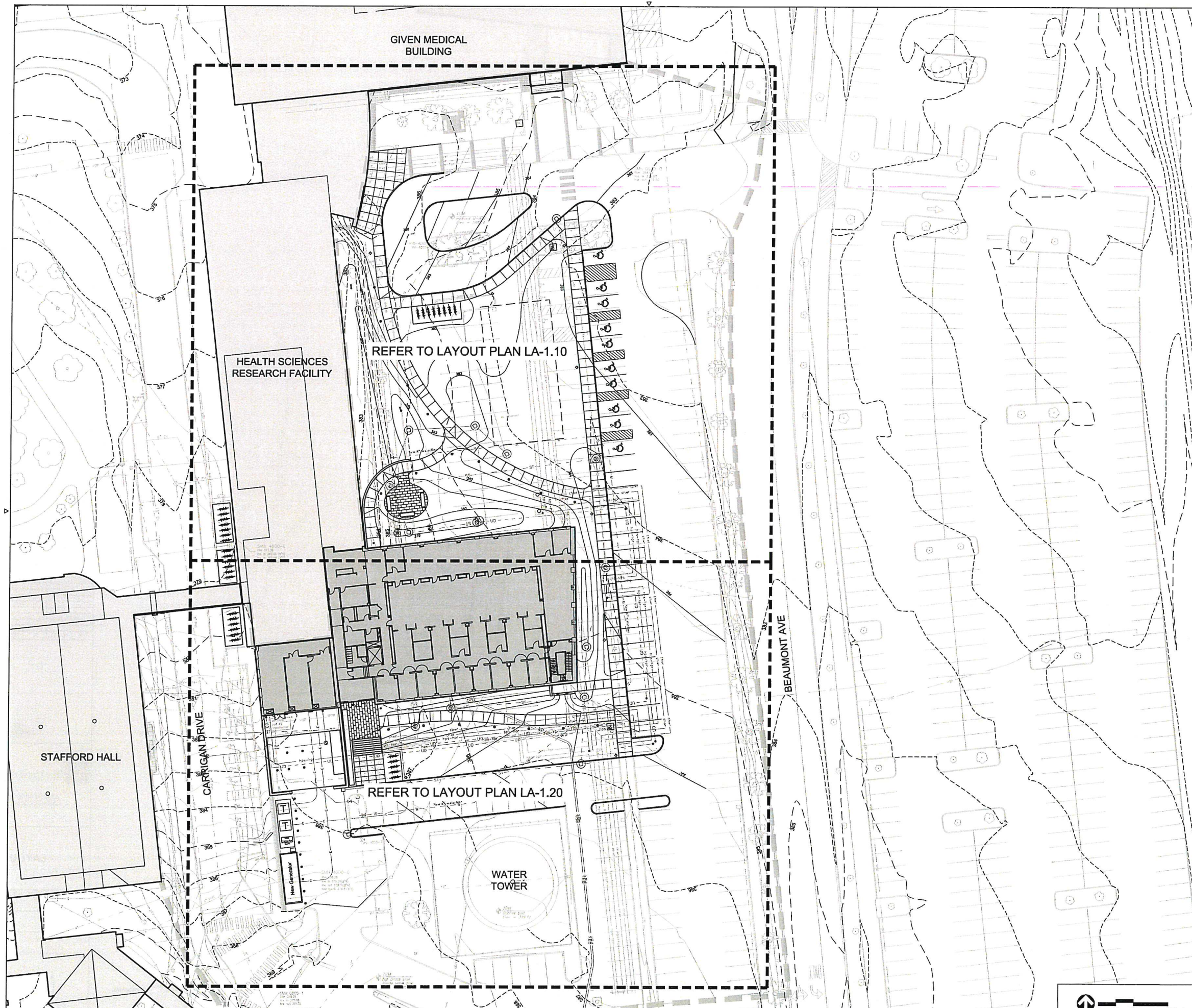
Project Number

39126.00

Date Issued

05/02/2019

LA-0.00



GIVEN MEDICAL BUILDING

HEALTH SCIENCES RESEARCH FACILITY

REFER TO LAYOUT PLAN LA-1.10

REFER TO LAYOUT PLAN LA-1.20

WATER TOWER

STAFFORD HALL

CARRIGAN DRIVE

BEAUMONT AVE

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--	---

MEP/FP Engineer BR-A Consulting Engineers 10 Guest St., 4th Floor Boston, MA 02135 Tel: 617-254-0016	Structural Engineer Novelli Engineering 369 Daniels Road PO Box 637 Shaffsbury, VT 05262 Tel: 802-447-4950
--	--

M/P Engineer Slade Engineering 18 Clarendon Avenue Montpelier, VT 05602 Tel: 802-777-3198	Electrical Engineer Pearson & Associates, Inc. PO Box 610 Stowe, VT 05672 Tel: 802-253-9607
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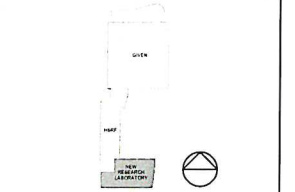
Code Consultant R.W. Sullivan Engineering The Schraff's City Ctr. 529 Main St., Suite 203 Boston, MA 02129 Tel: 617-254-0016	
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LAYOUT PLAN

Drawing Scale 1"=20'	
Project Number 39126.00	
Date Issued 05/22/2019	

LA-1.00

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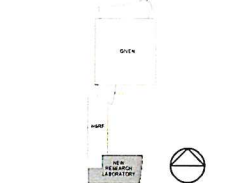
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1	AUG 19 2019	DEPARTMENT OF PLANNING & ZONING



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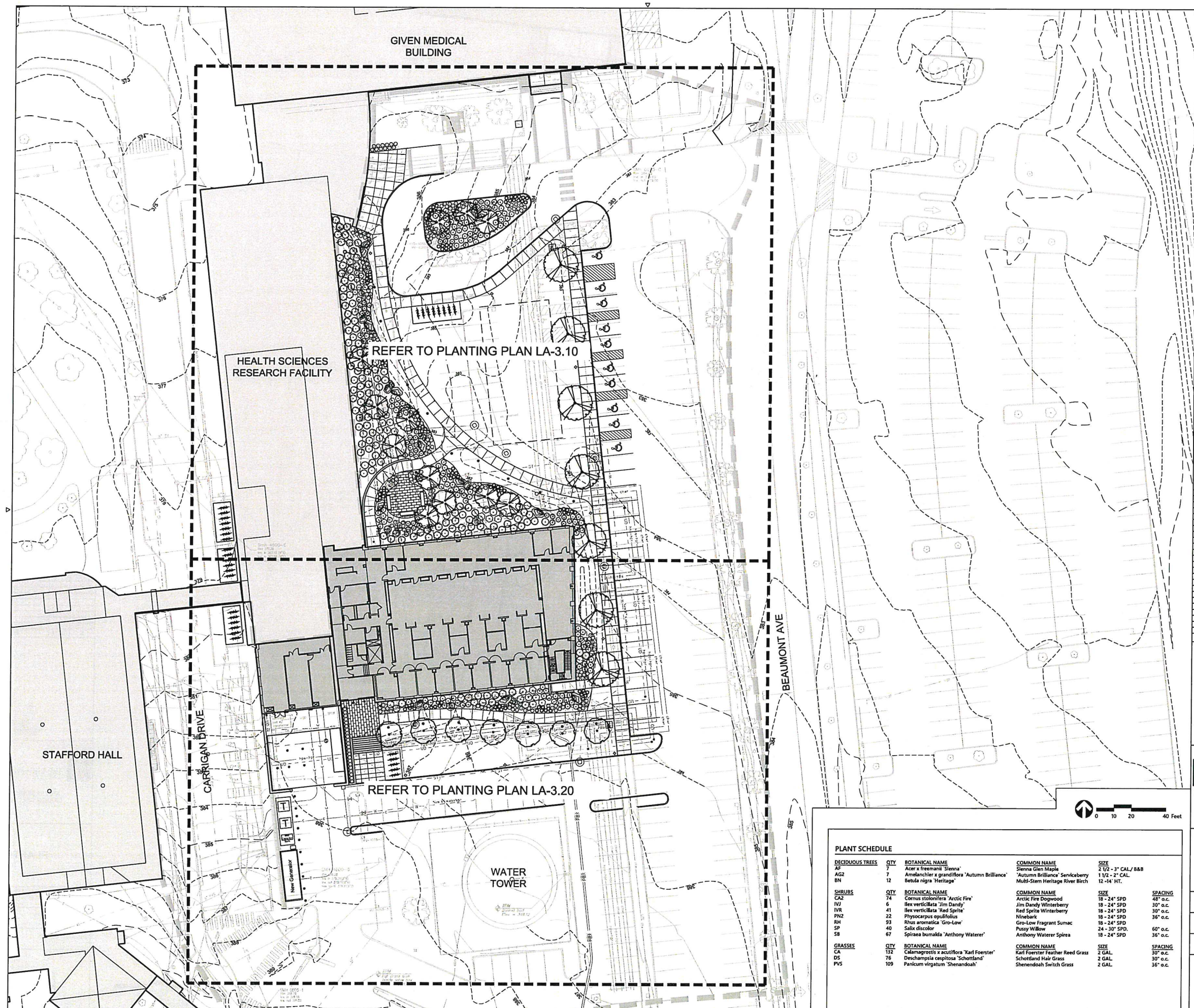
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Drawing Scale

Project Number

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05/02/2019

LA-3.00



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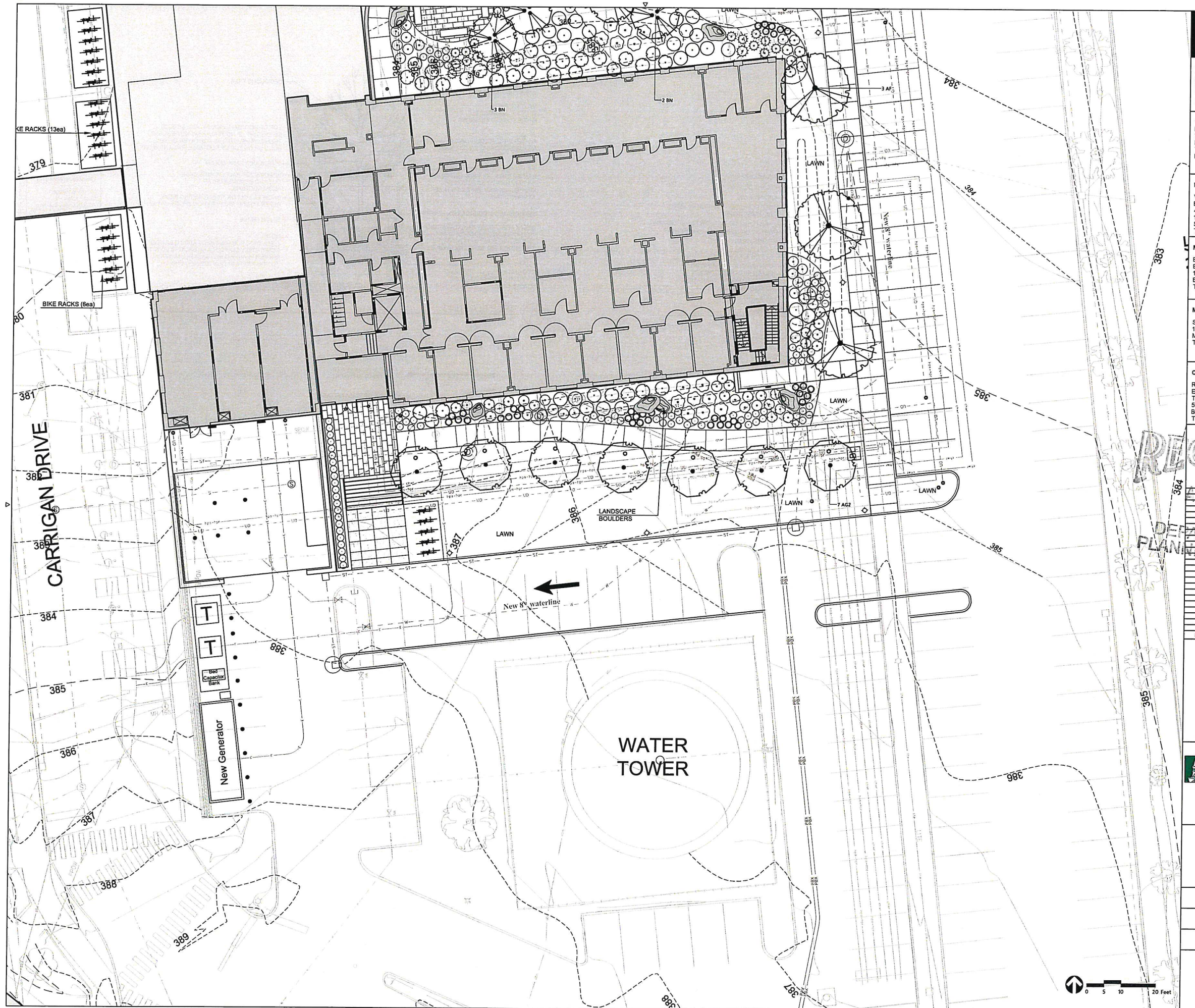
PLANTING PLAN

Drawing Scale

Project Number	39120.00
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Date Issued
05/02/2019

LA-3.20



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ISO-CONTOUR	FOOTCANDLE VALUE
	1.00
	0.50
	0.25

LIGHT FIXTURE AND POLE SPECIFICATIONS

Fixture A:	
Manufacturer:	Lumec
Fixture:	L70
Configuration:	1
Optics:	SE3
Lamp:	40watt LED 4,100K
Lens:	PC-FC
Color:	GN8TX
Options:	GFI
Pole:	AM6F-10
Adapter:	SFO

Fixture B:	
Manufacturer:	Lumec
Fixture:	BOR80 Bollard
Configuration:	1
Lamp:	40watt LED

Fixture BL:	
Manufacturer:	Code Blue www.codeblue.com
Fixture:	CB 1-s (pedestal mount)
Finish Color:	British Racing Green
Graphics Text:	"Emergency" (2 sided)
Graphics Color:	Yellow
Opening:	FP2

Fixture C:
 Manufacturer: we-ef
 Fixture: DOC220 630-4338
 Finish Color: Black
 Lamp: 24watt LED
 Mounting Height: • • • • •
 Refer to architect's building elevations.

Fixture D:
Manufacturer: Lithonia
Fixture: WST
Finish Color: Black
Lamp: P3 LED
Distribution: VF
Mounting Height: ***
 Refer to architect's building elevation

Fixture E:
Manufacturer: Bega
Fixture: 22384
Finish Color: Black
Lamp: 11.2 watt LED
Mounting Height: 2'-0"

Fixture F:	
Manufacturer:	Lumec
Fixture:	L70
Configuration:	1
Optics:	SE5
Lamp:	40watt LED 4,100K
Lens:	PC-FC
Color:	GN8TX
Options:	GFI
Pole:	AM6F-10
Adapter:	SFO

Notes:

1. Contractor to provide shop drawings of all light fixtures and accessories for review and approval.
2. No light fixture substitutions will be allowed without prior approval.
3. Refer to all lighting plans and lighting details for additional information.
4. Contractor to take special care to make sure that light fixtures are installed in the locations identified on the lighting plans, avoiding conflicts with trees and other plant material.
5. Refer to lighting details for light horizontal offset when pole mounted lights are located next to walks and plazas.
6. Refer to lighting details for light pole bases and fixture installation requirements.
7. Contractor to coordinate with electrical engineer's drawings for all site and exterior building mounted light fixtures for conduit and control information.

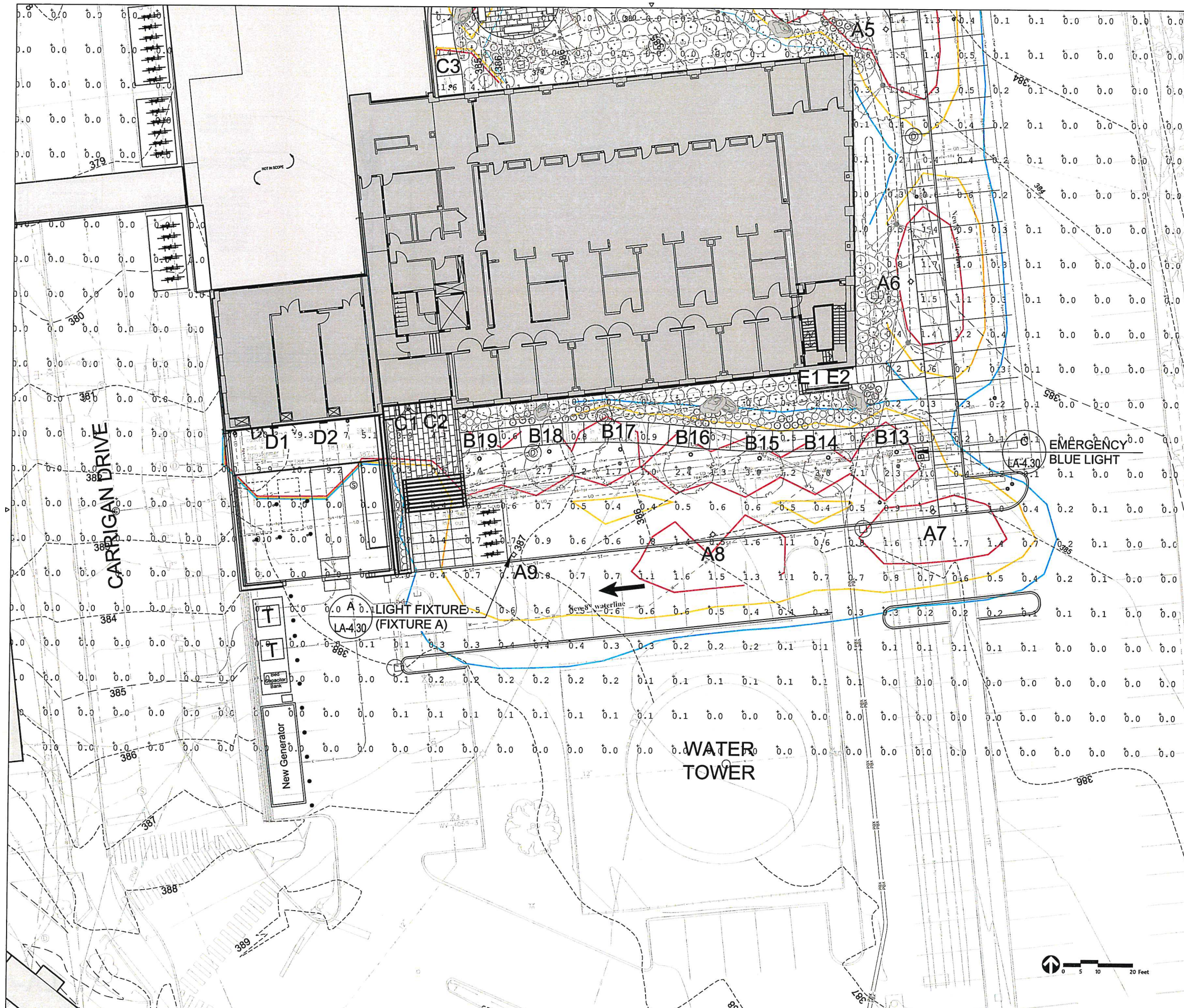


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LARNER COLLEGE OF MEDICINE

LIGHTING PLAN

Drawing Scale
Project Number 39126.00
Date Issued 05/02/2019

LA-4.00



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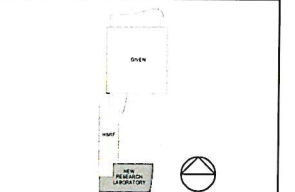
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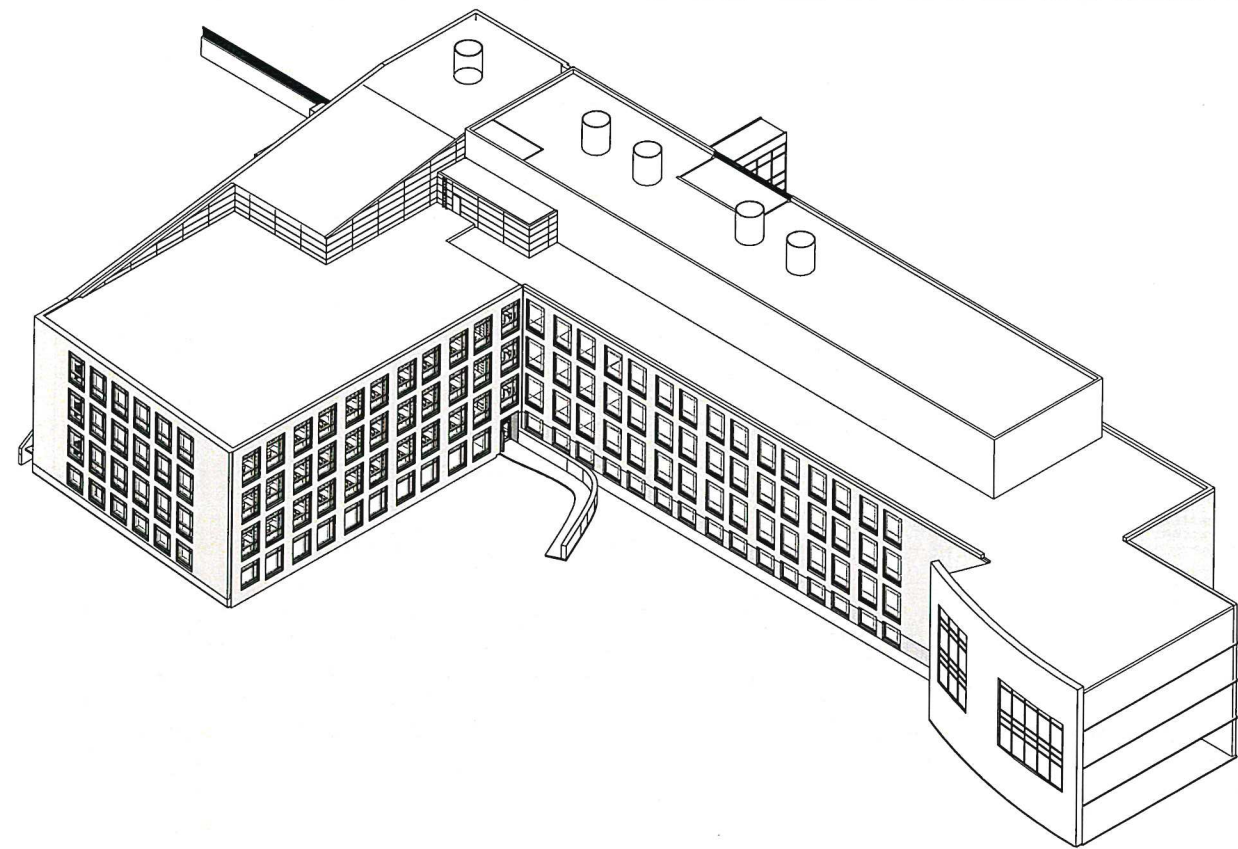


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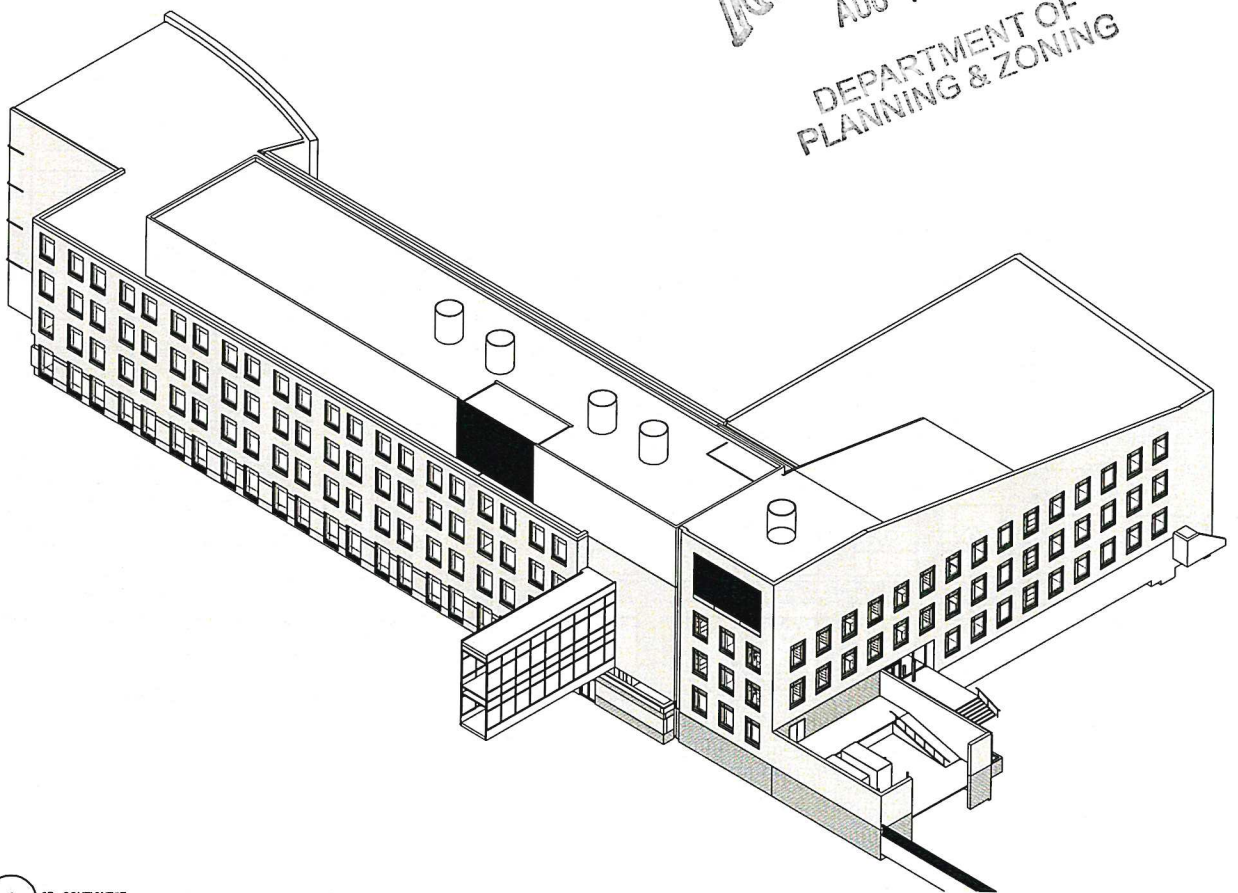
LIGHTING PLAN

Drawing Scale
Project Number
39126.00
Date Issued
05/22/2019

LA-4.20



2 3D - NORTHEAST
SCALE



1) 3D - SOUTHWEST
SCALE:

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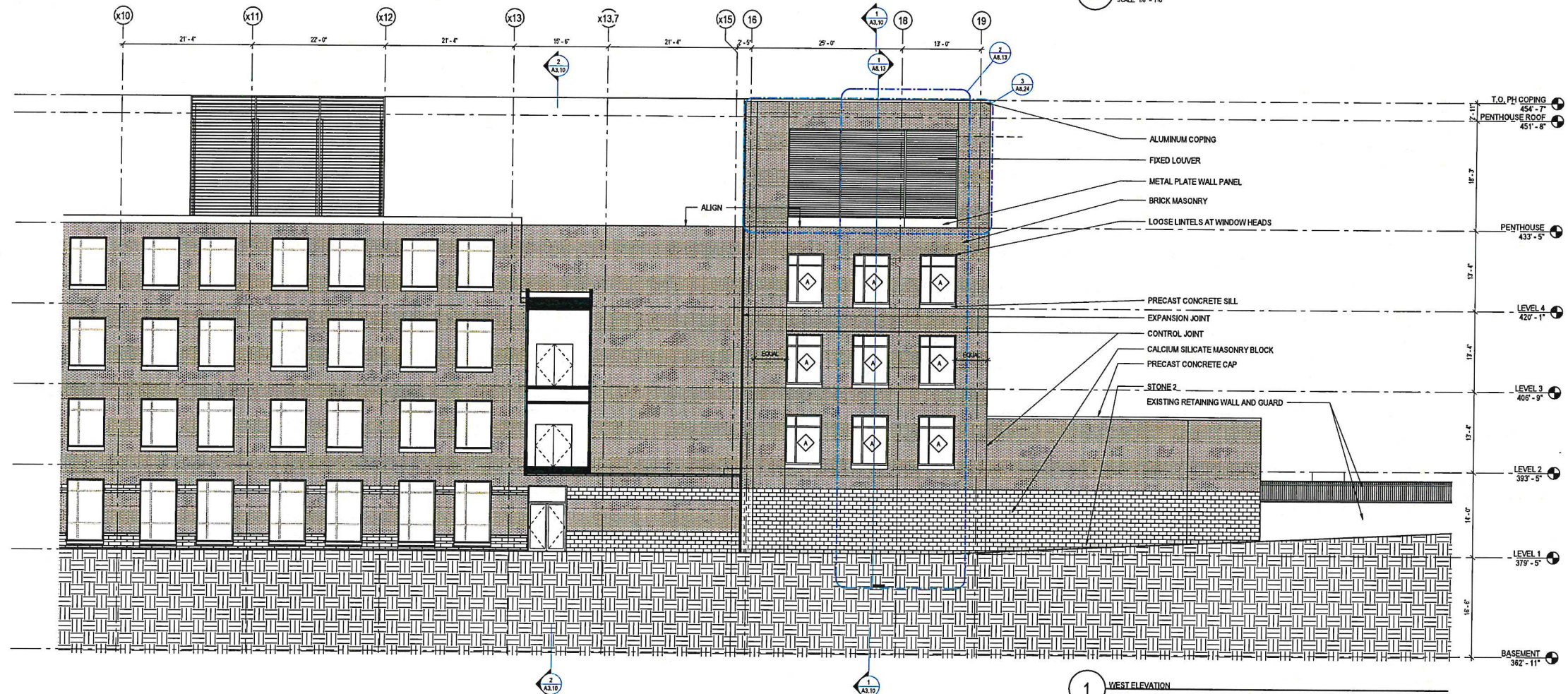
EXTERIOR 3D VIEWS

Drawing Scale

Project Number
39126.00

Date Issued
05/02/2019

A3.00



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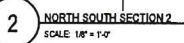
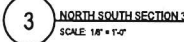
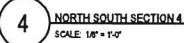
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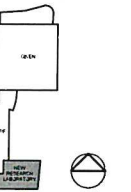
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BUILDING SECTIONS

Drawing Scale 1/8" = 1'-0"	
Project Number 39126.00	
Date Issued 05/20/2019	

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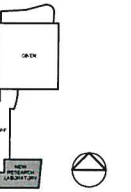
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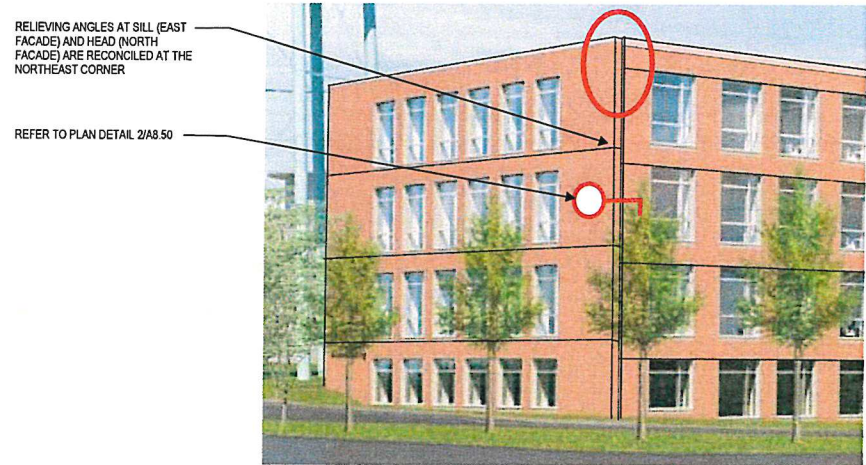
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Drawing Scale

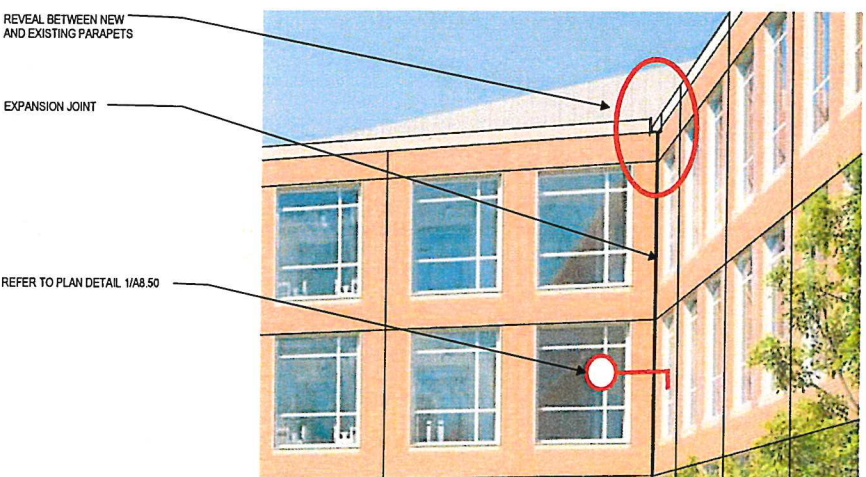
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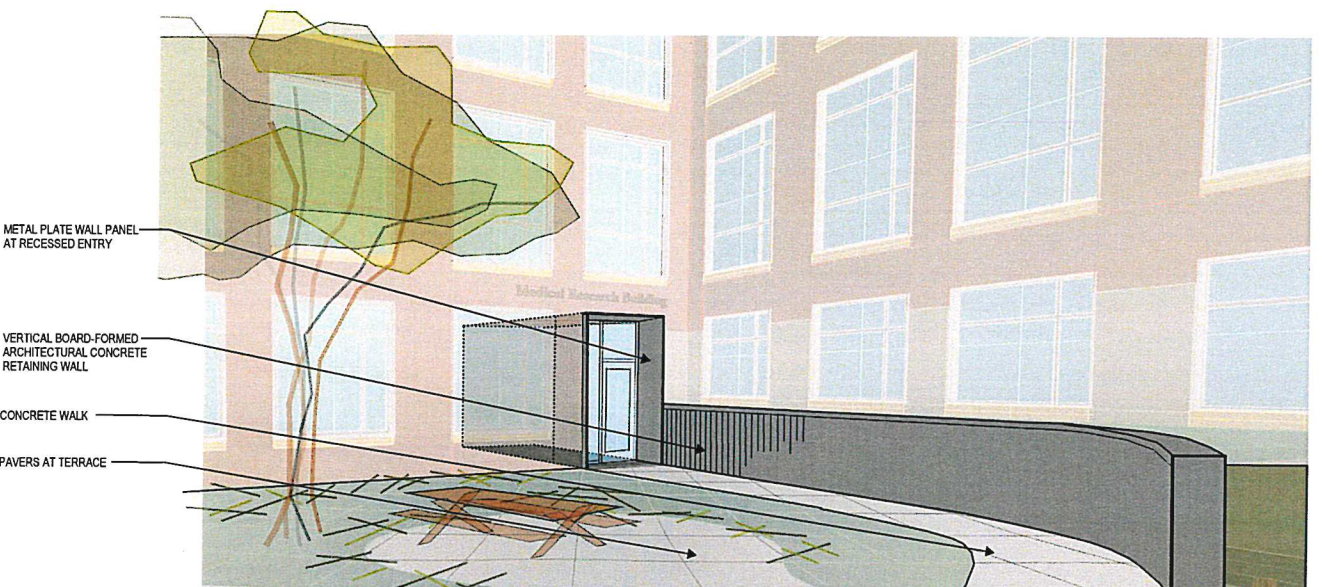
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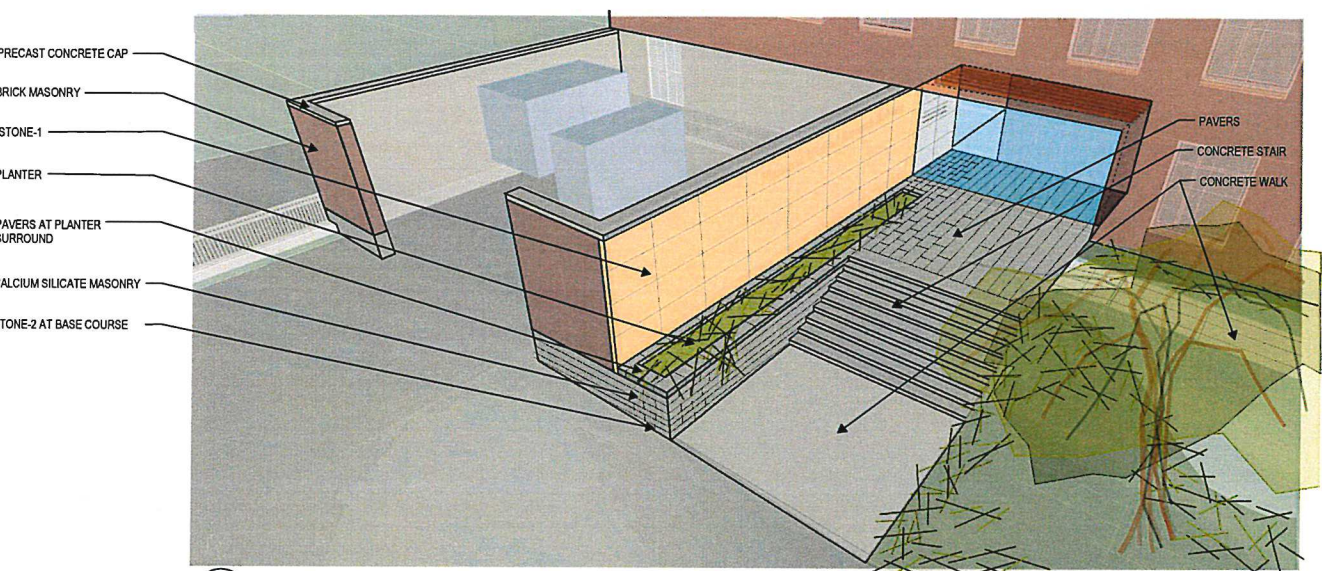
4 NORTHEAST PARAPET CORNER
NOT TO SCALE



5 NORTHEAST PARAPET CORNER
NOT TO SCALE



1 NORTH ENTRANCE
NOT TO SCALE



2 SOUTH ENTRANCE
NOT TO SCALE

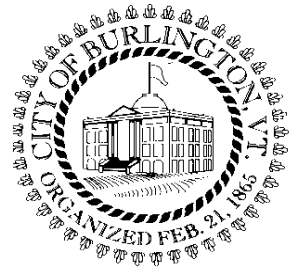


3 SOUTHWEST EGRESS S
NOT TO SCALE

Department of Permitting and Inspections

Zoning Division
149 Church Street, City Hall
Burlington, VT 05401
www.burlingtonvt.gov/pz
Phone: (802) 865-7188
Fax: (802) 865-7195

William Ward, Director
Scott Gustin, AICP, CFM, Principal Planner
Mary O'Neil, AICP, Principal Planner
Ryan Morrison, Associate Planner
Layne Darfler, Planning Technician
Vacant, Zoning Clerk
Theodore Miles, Zoning Specialist
Charlene Orton, DPI Administrator



MEMORANDUM

To: The Design Advisory Board
From: Mary O'Neil, AICP, Principal Planner
RE: 108 Buell Street; ZP20-0188CA
Date: September 10, 2019

File: ZP20-0188Ca
Location: 108 Buell Street
Zone: RH **Ward:** 8E
Parking District: Neighborhood
Date application accepted: August 12, 2019
Applicant/ Owner: William B. Spencer II
Request: Remove and replace existing front porch, extending across the entire façade. New porch extension to be uncovered.

Background:

- **Zoning Permit 19-0921DT;** Determination request of preexisting nonconforming occupancy by 5 unrelated adult occupants. Approved June 2019.
- **DRB Appeal 2003-057;** Notice of violation of expansion of parking without a permit. Appeal withdrawn.
- **Zoning Permit n.n.;** Build 24' x24' garage approximately one foot from east property line. Approved May 1962.



Overview:

108 Buell Street is listed on both the State and National Register of Historic Places; within the **Buell Street / Bradley Street Historic District**. Constructed in 1895, it is an intact 2 ½ story Queen Anne single family residence built for Edward M. Stevens, an employee of the Burlington Grocery Company. The application seeks to remove the existing front porch and replace it with a full width porch.

Part 1: Land Division Design Standards

Not applicable.

Part 2: Site Plan Design Standards
Sec. 6.2.2 Review Standards

(a) Protection of Important Natural Features:

No important natural features are proposed to be altered. Not applicable.

(b) Topographical Alterations:

No topographical alterations are proposed. Not applicable.

(c) Protection of Important Public Views:

Not applicable.

(d) Protection of Important Cultural Resources:

Burlington's architectural and cultural heritage shall be protected through sensitive and respectful redevelopment, rehabilitation, and infill. Archeological sites likely to yield information important to the city's or the region's pre-history or history shall be evaluated, documented, and avoided whenever feasible. Where the proposed development involves sites listed or eligible for listing on a state or national register of historic places, the applicant shall meet the applicable development and design standards pursuant to Sec. 5.4.8(b).

See Section 5.4.8, below.

(e) Supporting the Use of Renewable Energy Resources:

No part of the application would preclude the utilization of wind, water, solar, geothermal, or other renewable energy resource.

(f) Brownfield Sites:

Not applicable.

(g) Provide for nature's events:

Special attention shall be accorded to stormwater runoff so that neighboring properties and/or the public stormwater drainage system are not adversely affected. All development and site disturbance shall follow applicable city and state erosion and stormwater management guidelines in accordance with the requirements of Art 5, Sec 5.5.3.

Design features which address the effects of rain, snow, and ice at building entrances, and to provisions for snow and ice removal or storage from circulation areas shall also be incorporated.

An open porch is a traditional and elegant way to provide shelter from inclement weather.

(h) Building Location and Orientation:

No change is proposed to the orientation of the primary structure.

(i) Vehicular Access:

No change proposed. Not applicable.

(j) Pedestrian Access:

There is no indication that the front walkway will be relocated or removed. Presumably, it will remain as existing.

(k) Accessibility for the Handicapped:

Although encouraged, ADA access is not required for single family homes.

(l) Parking and Circulation:

No change is proposed. Not applicable.

(m) Landscaping and Fences:

Not applicable.

(n) Public Plazas and Open Space:

Not applicable.

(o) Outdoor Lighting:

Where exterior lighting is proposed the applicant shall meet the lighting performance standards as per Sec 5.5.2.

Not applicable.

(p) Integrate infrastructure into the design:

Exterior storage areas, machinery and equipment installations, service and loading areas, utility meters and structures, mailboxes, and similar accessory structures shall utilize setbacks, plantings, enclosures and other mitigation or screening methods to minimize their auditory and visual impact on the public street and neighboring properties to the extent practicable.

Utility and service enclosures and screening shall be coordinated with the design of the principal building, and should be grouped in a service court away from public view. On-site utilities shall be placed underground whenever practicable. Trash and recycling bins and dumpsters shall be located, within preferably, or behind buildings, enclosed on all four (4) sides to prevent blowing trash, and screened from public view.

Any development involving the installation of machinery or equipment which emits heat, vapor, fumes, vibration, or noise shall minimize, insofar as practicable, any adverse impact on neighboring properties and the environment pursuant to the requirements of Article 5, Part 4 Performance Standards.

Not applicable.

Part 3: Architectural Design Standards
Sec. 6.3.2 Review Standards

(a) Relate development to its environment:

1. Massing, Height and Scale:

No change is proposed to home, but replacement of the porch with a larger component that would extend across the entire primary façade.

2. Roofs and Rooflines.

The submission indicates asphalt shingles; no architectural drawing was included but the simple ink drawing suggests a shed roof.

3. Building Openings

Not applicable.

(b) Protection of Important Architectural Resources:

Burlington's architectural and cultural heritage shall be protected through sensitive and respectful redevelopment, rehabilitation, and infill. Where the proposed development involves buildings listed or eligible for listing on a state or national register of historic places, the applicant shall meet the applicable development and design standards pursuant to Sec. 5.4.8. The introduction of new buildings to a historic district listed on a state or national register of historic places shall make every effort to be compatible with nearby historic buildings.

See Section 5.4.8.

(c) Protection of Important Public Views:

Not applicable.

(d) Provide an active and inviting street edge:

Open porches warm and enhance the streetface of residential buildings.

(e) Quality of materials:

All development shall maximize the use of highly durable building materials that extend the life cycle of the building, and reduce maintenance, waste, and environmental impacts. Such materials are particularly important in certain highly trafficked locations such as along major streets, sidewalks, loading areas, and driveways. Efforts to incorporate the use of recycled content materials and building materials and products that are extracted and/or manufactured within the region are highly encouraged.

Owners of historic structures are encouraged to consult with an architectural historian in order to determine the most appropriate repair, restoration or replacement of historic building materials as outlined by the requirements of Art 5, Sec. 5.4.8.

Composite decking and “non-pressure treated lumber” are identified as building materials. Further articulated plans and materials will be required to assure appropriate replacement design and materials per this standard.

(f) Reduce energy utilization:

Not applicable.

(g) Make advertising features complementary to the site:

Not applicable.

(h) Integrate infrastructure into the building design:

Not applicable.

(i) Make spaces secure and safe:

Not applicable.

Sec. 5.4.8 Historic Buildings and Sites



108 Buell Street, image taken March 1987

The City seeks to preserve, maintain, and enhance those aspects of the city having historical, architectural, archaeological, and cultural merit. Specifically, these regulations seek to achieve the following goals:

To preserve, maintain and enhance Burlington's historic character, scale, architectural integrity, and cultural resources;

To foster the preservation of Burlington's historic and cultural resources as part of an attractive, vibrant, and livable community in which to live, work and visit;

To promote a sense of community based on understanding the city's historic growth and development, and maintaining the city's sense of place by protecting its historic and cultural resources; and,

To promote the adaptive re-use of historic buildings and sites.

(a) Applicability:

These regulations shall apply to all buildings and sites in the city that are listed, or eligible for listing, on the State or National Register of Historic Places.

108 Buell Street is listed on both the State of Vermont and National Register of Historic Places (**Buell Street / Bradley Street Historic District.**) See attached nomination narratives.

(b) Standards and Guidelines:

The following development standards, following the Secretary of the Interior's Standards for the Treatment of Historic Properties, shall be used in the review of all applications involving historic buildings and sites subject to the provisions of this section and the requirements for Design Review in Art 3, Part 4. The Secretary of the Interior's Standards are basic principles created to help preserve the distinctive character of a historic building and its site. They are a series of concepts about maintaining, repairing and replacing historic features, as well as designing new additions or making alterations. These Standards are intended to be applied in a reasonable manner, taking into consideration economic and technical feasibility.

- 1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.*

The property was constructed as a single family dwelling; a use that has continued since its construction.

- 2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.*

The existing historic porch, sheltered the recessed entry door and embellished with a hip roof, turned posts and balusters, incised brackets and spindlework presents a modest but elegant component of the overall Queen Anne design. The porch handrails and steps have already been replaced insensitively and without permits (the noted stairway risers with double-arrow motif are gone) but the bulk of the landing and decorative detail remain. The proposed replacement, extending across the front of the dwelling, will significantly diminish the original integrity of the façade and this particular architectural component. The plan call for a

portion of the extended porch to be uncovered; completely uncharacteristic of the style and period of the home and contrary to this standard.

An extended porch will also interfere and obscure particular design features of the structure. A canted wall on the first floor (southwest corner) with an inset window on the diagonal wall plane will be lost behind an extended porch. This is a significant element associated with the Queen Anne style; its obscurement a diminishment of the stylistic features of the home. Similarly, a fixed window with ornamental transom on the first floor would not longer be easily discernable.

3. *Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.*

The house never had a full width front porch. To replace the existing entry porch with a full width (partially roofless) porch is inconsistent with the original design, conjectural or inappropriate to this home, and contrary to this standard.

4. *Changes to a property that have acquired historic significance in their own right will be retained and preserved.*

The replacement stairs and handrails (unpermitted) have not garnered significance in their own right. Replacement stairs/risers/handrails should be installed to replicate the originals.

5. *Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

This is a particularly ornate feature for this home; remarkable for such detail and elegance for a single family home in a neighborhood of (originally) middle class families. The lightness and finery of this special component elevate the design and importance of the entire dwelling. Unfortunately, the porch has fallen into disrepair requiring more immediate attention. To retain the integrity and essential merit of this structure, the porch, as originally designed, requires replacement-in-kind per this standard.

6. *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials recognizing that new technologies may provide an appropriate alternative in order to adapt to ever changing conditions and provide for an efficient contemporary use. Replacement of missing features will be substantiated by documentary and physical evidence.*

If repair is not an option, the deteriorated original porch is required to be replaced-in-kind per this standard. The Development Review Board has allowed composite (floor) decking on historic porches, but disallowed synthetic or composite balusters, posts, rails or trim. The extended porch proposed is not consistent with these standards, and is contrary to this specific standard as the replacement does not match the old in design or appearance.

7. *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Not applicable.

8. *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.*

There are no known archaeological resources at this location. If any are identified during construction, the owner or contractor shall immediately notify the Division for Historic Preservation for assessment, identification, and recommended disposition.

9. *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale, and proportion, and massing to protect the integrity of the property and its environment.*

The proposed replacement porch will alter spatial relationships characteristic of the structure and removal an important feature of the dwelling. The plan is incompatible with the historic appearance, size, scale, proportion, massing and design of the original structure and therefore contrary to this standard.

10. *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

It is possible to consider a porch replacement as reversible; however, the removal of the original porch will so alter the visual and spatial characteristic of the structure that the historic integrity of the resource will be compromised.

Staff recommends the replacement of the porch, in kind and matching the original details and finishes of the original porch, to retain and return the porch to its previous and character defining appearance.



Department of Permitting and Inspections

149 Church Street, City Hall
Burlington, VT 05401-8415

Phone: (802) 865-7188

Fax: (802) 865-7195

www.burlingtonvt.gov/pz

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DEPARTMENT OF
PLANNING & ZONING

Zoning Permit Application

Use this form for ALL zoning permit applications. See the relevant checklist for specific requirements.

PROJECT LOCATION ADDRESS: 108 Buell St. Burlington, VT 05401

PROPERTY

OWNER*: William B. Spencer II

*If condominium unit, written approval from the Association is also required

POSTAL ADDRESS: 108 Buell St.

CITY, ST, ZIP: Burlington, VT 05401

DAY PHONE: 802-999-9453

EMAIL: wbspencer@mylandair.com

SIGNATURE: William B. Spencer II

I am the owner. In addition, I duly authorize the applicant (if noted) to act on my behalf for all matters pertaining to this zoning permit application.

APPLICANT: William B. Spencer II

POSTAL ADDRESS: 108 Buell St.

CITY, ST, ZIP: Burlington, VT 05401

DAY PHONE: 802-999-9453

EMAIL: wbspencer@mylandair.com

SIGNATURE: William B. Spencer II

Description of Proposed Project: I would like to replace the existing porch which is in disrepair and add on to the replacement porch covering the front side of the property. The proposed porch will replace the existing footprint plus a 12' x 6' section (uncovered).

Existing Use of Property: ☒ Single Family ☐ Multi Family: #___ Units ☐ Other:___

Proposed Use of Property: ☒ Single Family ☐ Multi Family: #___ Units ☐ Other:___

- **Does your project involve new construction, addition, alteration, renovation, or repair to a structure that is heated or cooled?** Yes ☐ No ☐

(If yes, the Vermont Residential/Commercial Building Energy Standards (VRBES/VCBES) apply. Please visit the following links for more information: http://publicservice.vermont.gov/energy_efficiency/rbes or http://publicservice.vermont.gov/energy_efficiency/cbes)

- **Will 400 sq ft or more of land be disturbed, exposed and/or developed?** Yes ☐ No ☐

(If yes, you will need to submit the 'Erosion Prevention and Sediment Control Plan' questionnaire, with a site plan)

- **For Single Family & Duplex, will total impervious area be 2500 sq ft or more?** Yes ☐ No ☐

(If yes, you will need to submit the 'Stormwater Management Plan' questionnaire, with a site plan)

- **Are you proposing any work within, below, or above the public right of way?** Yes ☐ No ☐

(If yes, you will need to receive prior approval from the Department of Public Works)

- **Are you proposing any onsite food or beverage production/manufacturing?** Yes ☐ No ☐

(If yes, you will need to consult with Water Resources Division at the Department of Public Works: 863-4501)

Estimated Construction Cost (value)*: \$ 1,500

(*Estimated cost a typical contractor would charge for all materials and labor, regardless of who physically completes the work)

Within 30 days of submission, the permit application will be reviewed for completeness, and, if complete, will be processed administratively or referred to a board for review. All permit approvals or denials are subject to an appeal period (15 days for administrative permit; 30 days for board permit). A building (and/or electrical, mechanical, plumbing, curb cut) permit will also be required. Contact the Department of Public Works at 802-863-9094 to inquire. Please ask for assistance if you have any questions about filling out this form. Call the Zoning Department at 802-865-7188, or visit the office in the lower level of City Hall, 149 Church Street.

Office Use Only: Zone: R2 Eligible for Design Review? Y Age of House 1895 Lot Size 406

Type: SN___ AW___ FC___ BA___ COA 1___ COA 2___ COA 3___ CU___ MA___ VR___ HO___ SP___ DT___ MP___

Check No. 9348592

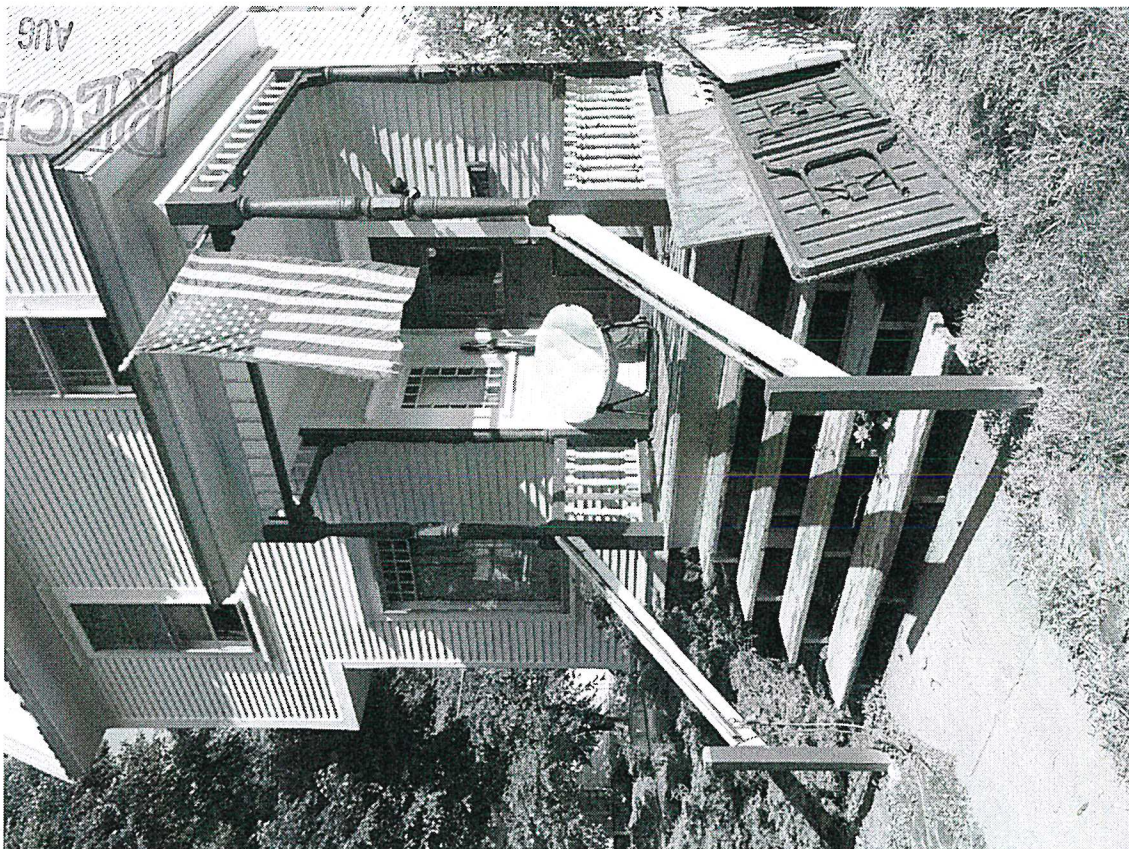
Amount Paid 85.00

Zoning Permit # 20-01882A

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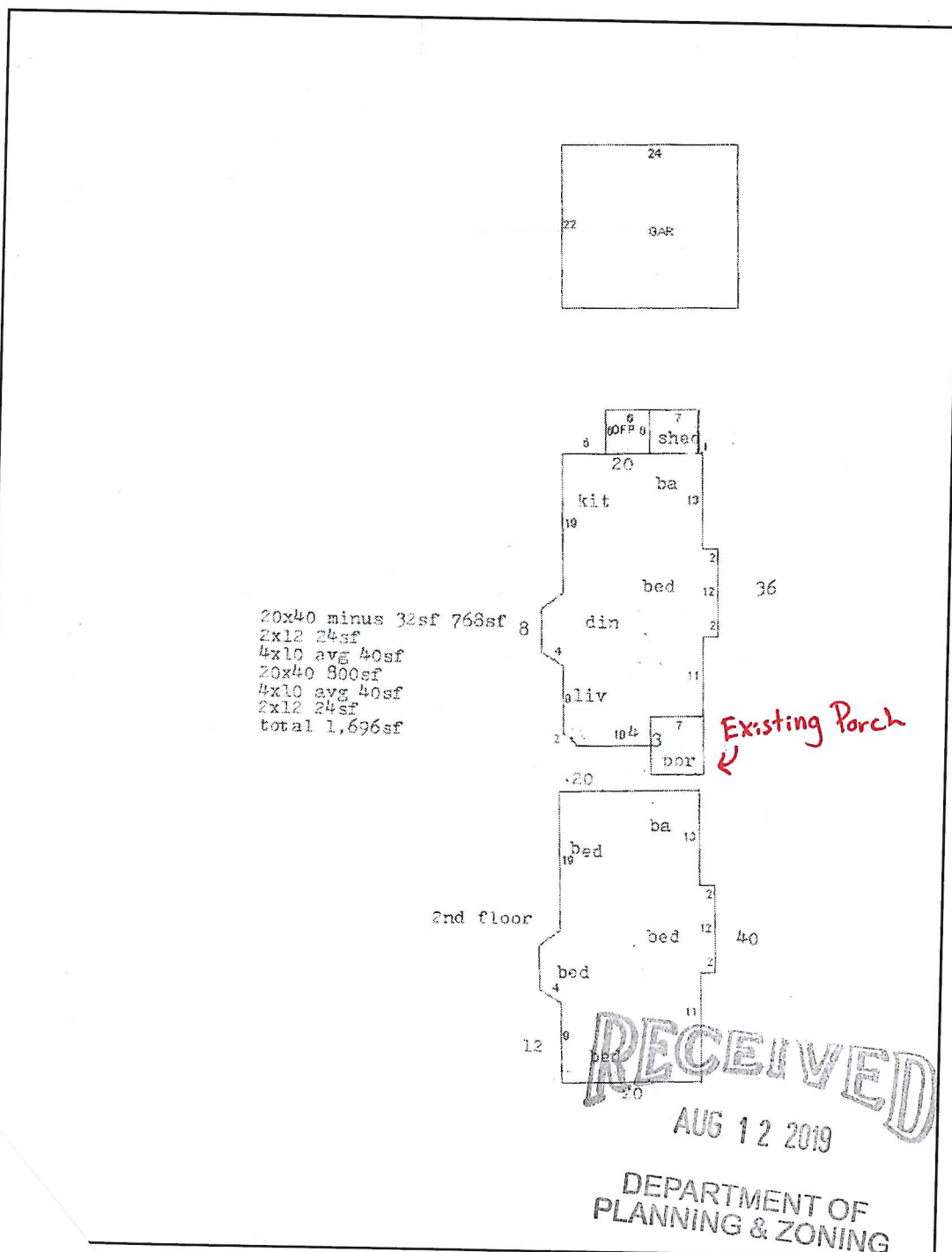
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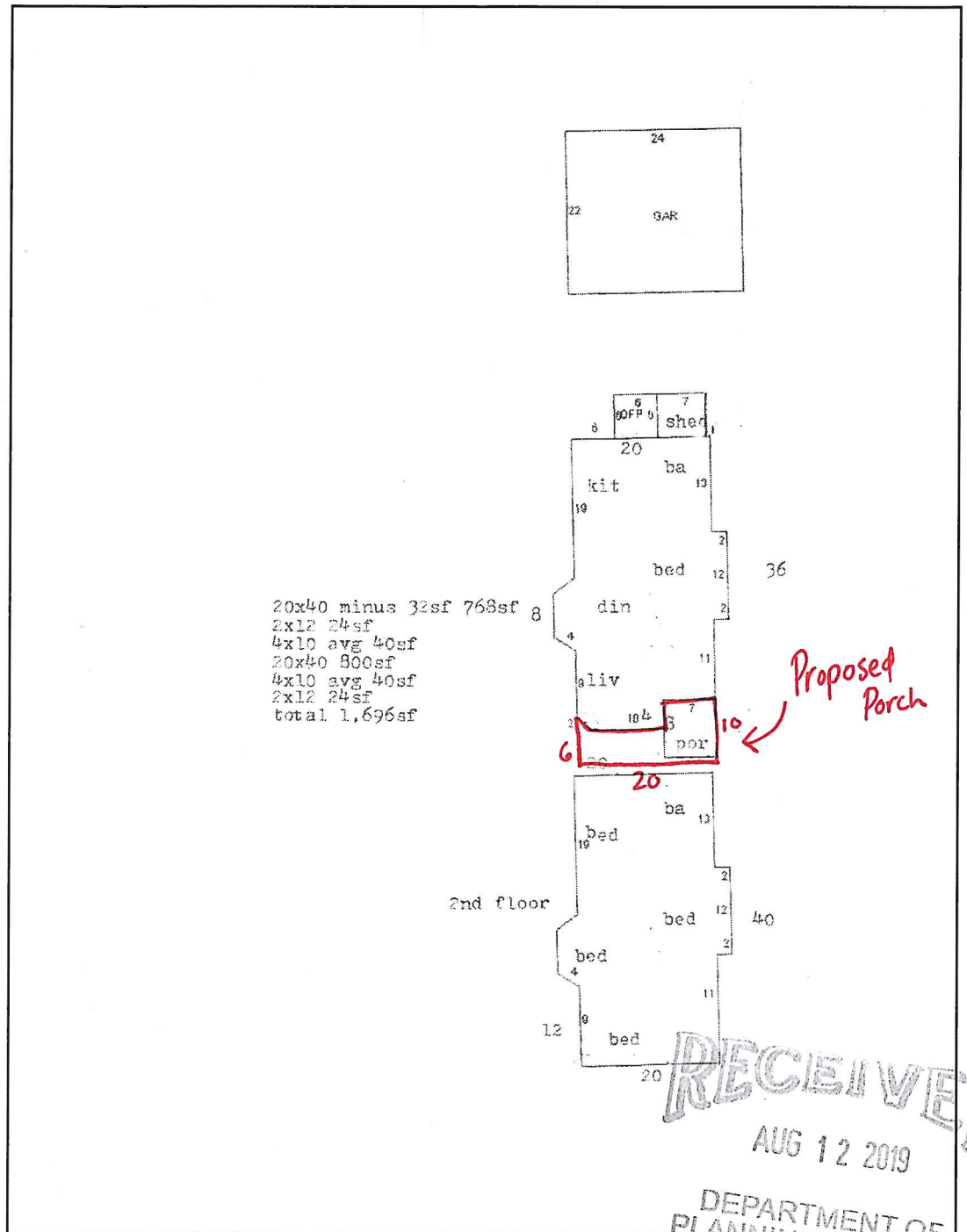
Building Sketch

Borrower	William Spencer			
Property Address	108 Buell St			
City	Burlington	County	Chittenden	State VT Zip Code 05401
Lender/Client	Fairway Independent Mortgage Corporation			

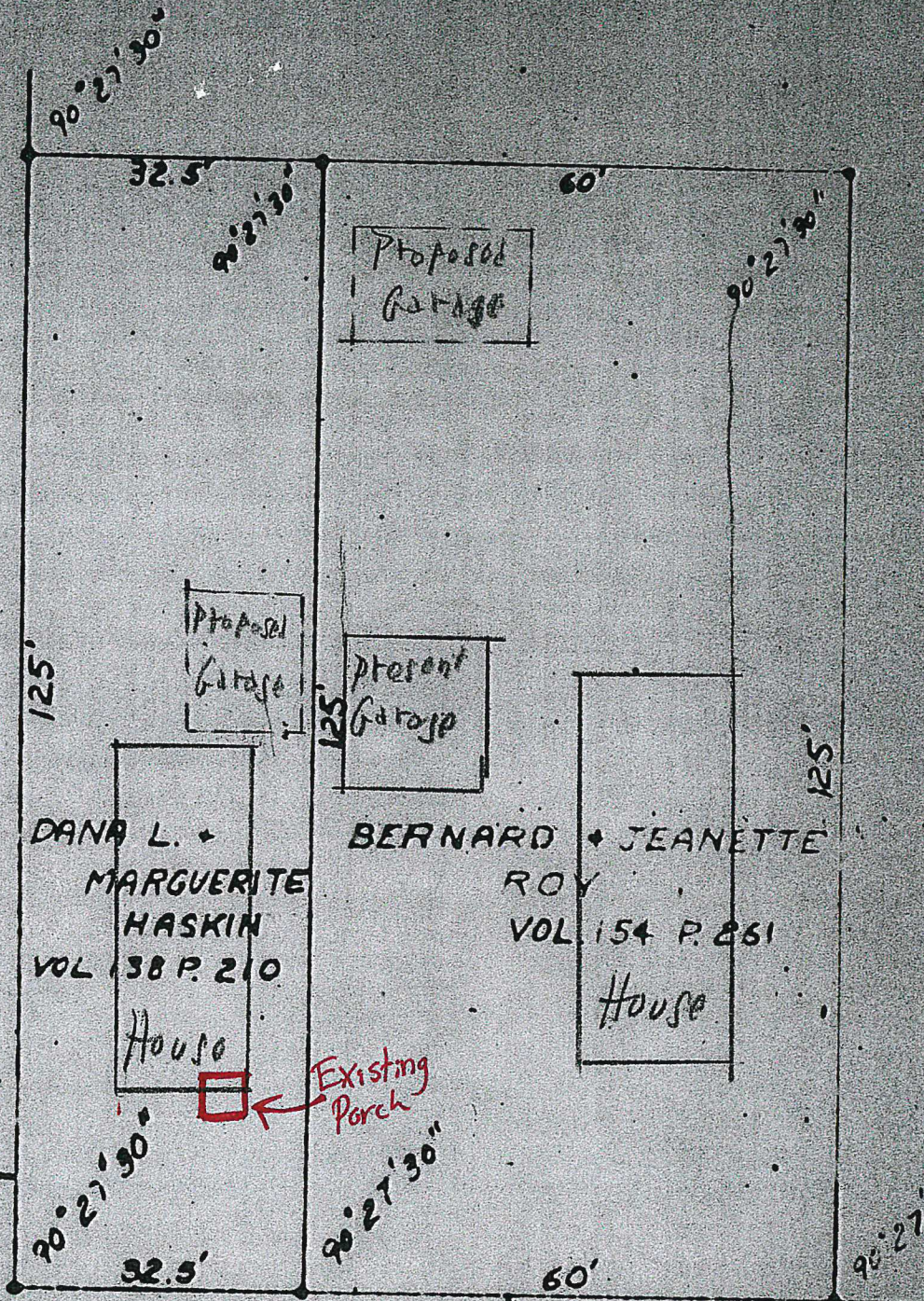


Building Sketch

Borrower	William Spencer			
Property Address	108 Buell St			
City	Burlington	County	Chittenden	State VT Zip Code 05401
Lender/Client	Fairway Independent Mortgage Corporation			



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DEPARTMENT OF
PLANNING & ZONING

BUELL STREET

60

SURVEYED BY
HARVELL + TATE
APRIL 1962
SCALE 1" = 20'

Lot Coverage Calculation

108 Buell St. Proposed Front Porch

August 12th 2019

Existing:

House (20'x40')	1696 sqft.
Garage (22'x24')	528 sqft.
Drive (22'x10')	220 sqft.
<u>Front Porch (8'x7')</u>	<u>56 sqft.</u>
Total	2500 sqft.

Lots Size (125'x32.5') 4062.5 sqft.
Existing Coverage (2500/4062.5) x100 = 62%

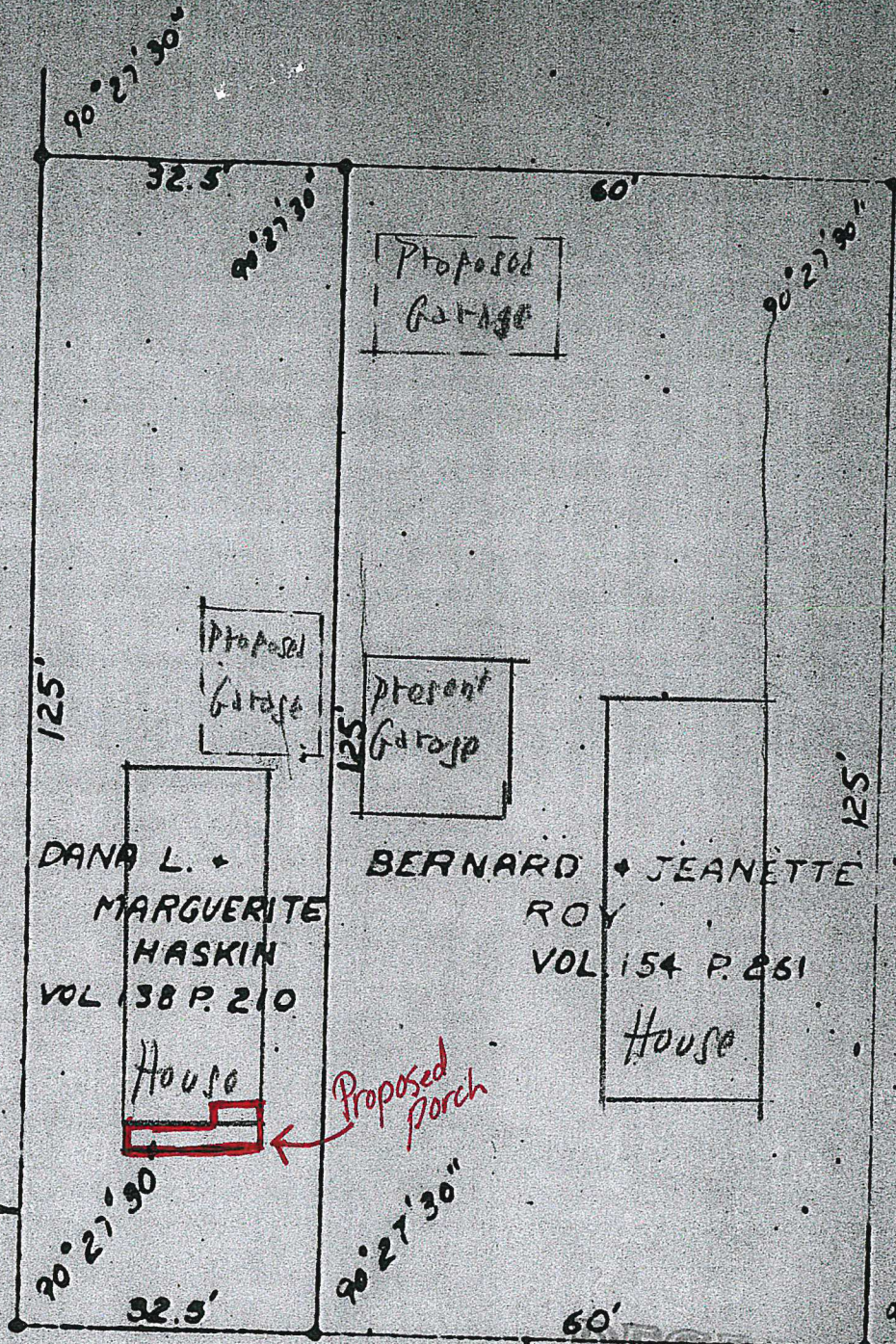
Proposed:

<i>Proposed Deck Addition (12'x6')</i>	<i>72 sqft.</i>
House (20'x40')	1696 sqft.
Garage (22'x24')	528 sqft.
Drive (22'x10')	220 sqft.
<u>Front Porch (8'x7')</u>	<u>56 sqft.</u>
Total	2572 sqft.

Lots Size (125'x32.5') 4062.5 sqft.
Proposed Coverage (2572/4062.5) x100 = 63%

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HUNGERFORD TERR



BUELL STREET

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SURVEYED BY
HARVELL + TATE
APRIL 1962

8/13/2019

Trex Enhance Composite Decking Board - The Home Depot

Quantity

-

1

+

The quantity of boards will
cover up to 5 sq. ft.

\$29.97
Estimated total

Pick Up In Store Today

3 in stock at Williston - Williston, VT

Add to Cart

Check Nearby Stores

We'll Deliver It to You

Get it as soon as tomorrow

Schedule delivery to your home or jobsite
on the day of your convenience

Express Delivery

- Composite decking Spec
+ Asphalt Shingles
+ base of deck will
Non-pressure treated

Your local store: Williston - Williston, VT

Store Details & Services

Easy returns in store and online

Learn about our return policy

Product Overview

- Authentic wood grain appearance in a range of versatile colors
- Simple installation; no specialty tools necessary
- High-performance shell is fade, stain, scratch and mold resistant

Model #:N/A
Sku #:534670
Internet #:305696565

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DEPARTMENT OF
PLANNING & ZONING

When wood has outworn its welcome, choose Trex Enhance®. Designed to outlast and engineered to outlast, Trex Enhance® is the worry-free alternative to traditional lumber. Available in both solid (Basics) and multi-tonal (Naturals) colors.

California residents: see Proposition 65 Information »

- Authentic wood grain appearance in a range of versatile colors
- Simple installation; no specialty tools necessary
- High-performance shell is fade, stain, scratch and mold resistant

- Backed by the Trex 25-year limited residential warranty and the Trex 25-year limited residential fade and stain warranty
- Made from 95% recycled materials

GOOD

Trex Enhance[®]

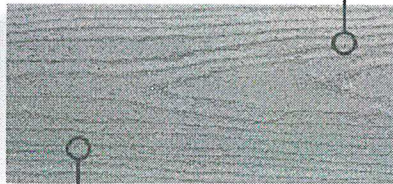
BASICS

EASY TO MAINTAIN.
EASIER TO AFFORD.

\$



Refined
wood-grain pattern



Easy-to-match
solid shades

AVAILABLE COLORS:



BETTER

Trex Enhance[®]

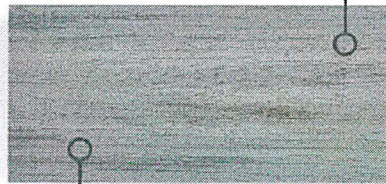
NATURALS

THE BEAUTY OF WOOD WITH
THE EASE OF COMPOSITE.

\$\$



Refined
wood-grain pattern



Multi-tonal colors
inspired by nature

AVAILABLE COLORS:



Info & Guides

- Use and Care Manual
- Warranty

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Specifications

Dimensions

Actual Product Length (ft.)	12, 16, 20
Nominal Product Length (ft.)	12, 16, 20
Actual Product Thickness (in.)	.94, 1.3
Nominal Product Thickness (in.)	1, 2
Actual Product Width (in.)	5.5
Nominal Product Width (in.)	6
Approximate Weight (lb)	31 – 73

Details

Color Family	Assorted Colors
Features	Water Resistant
Fastener Recommendation	Trex Recommended Fastener

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United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Buell St./Bradley St. Historic District
Burlington, Chittenden Co., Vermont

Section number 7 Page 47

inconsistent use of the Flemish bond.

61A. Garage, n.d.

A 3 bay brick garage with entrances perpendicular to the street is located in the rear of the lot. Each bay's double wooden doors are approximately 40% lights with two rows of four panes. Three strap hinges attach each door. The garage is built in common bond and has a flat roof.

★ 62. E.M. Stevens House (108 Buell Street), c.1895

A gable roof of slate decorated by an imbricated shingle band covers this gable-fronted rectangular 2 1/2 story Queen Anne structure. The front gable is closed by a pent roof. The gable peak 1/1 window and the pent roof are decorated with clipped shingles. The remainder of the gable is clapboarded. A recessed entrance porch whose steps are sheltered by a small hip roof extending from the recessed area occupies the right (east) bay of the first floor. Turned posts support the porch roof on its front two corners. Incised brackets, a spindle valance, and a turned balustrade add further detail. The stairway risers stretch the full width of the porch and are incised with a double-arrow motif. The glazing of the door is positioned between a narrow horizontal panel above it and a narrow panel, followed by a larger one below. The building rests on a random coursed redstone foundation.

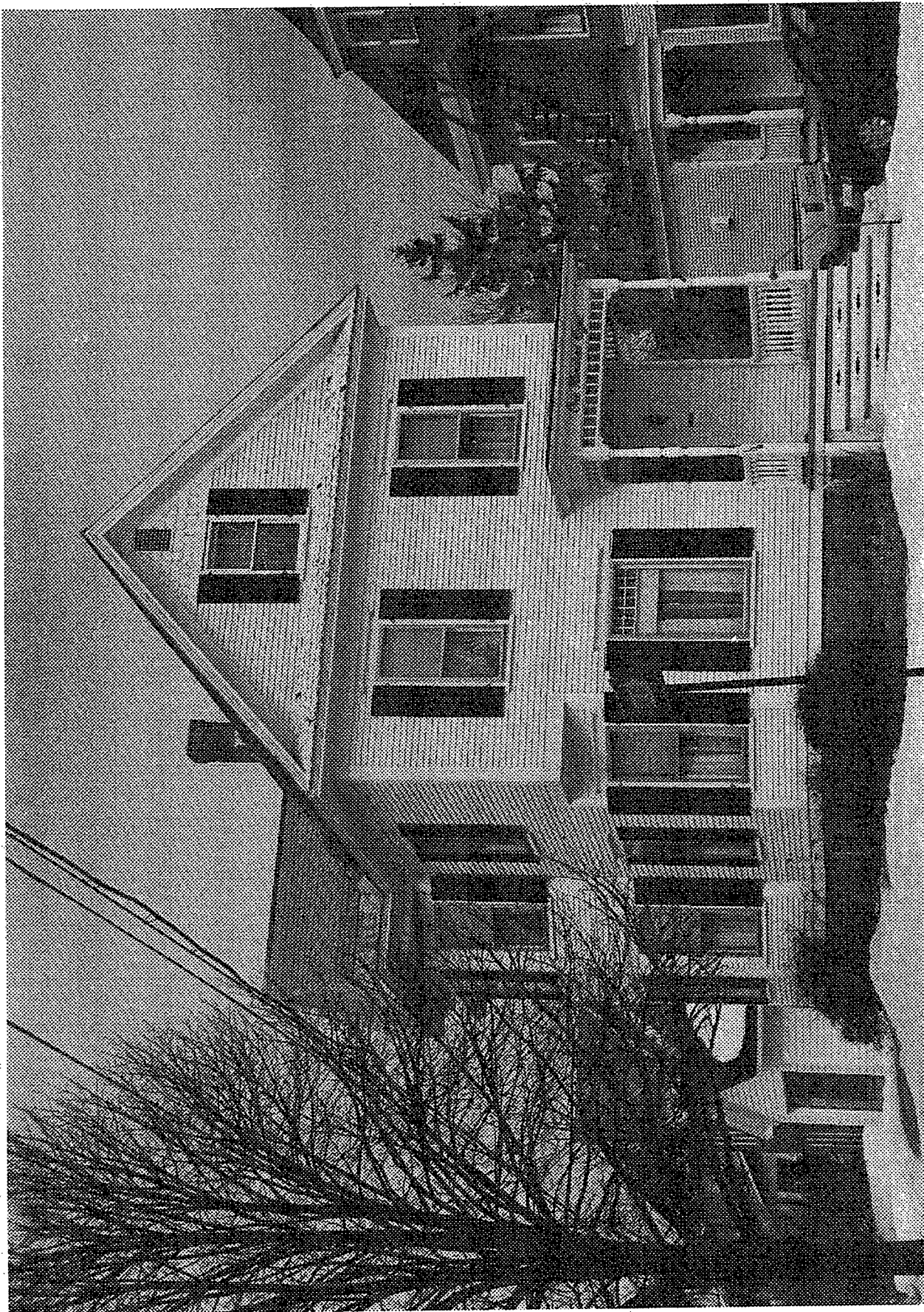
The fixed sash first story window of the west bay is decorated by two rows of small square colored lights at the top of the glazing. The southwest corner of the building has been placed in the canted wall. A 1/1 window is also placed within each bay of the second floor. Louvered shutters frame each window. A slender cornice-like molding tops the heads of all of the windows and the architraves of all doors.

A bay window capped with a closed gable occupies the middle of the west facade. A square projection also topped by a closed gable interrupts the east facade. An entrance porch leading to a small enclosed 1 story entrance area can be found at the rear of the building. A second door leads from the porch directly into the main block. The porch roof is also supported by bracketed posts and the four panels of its skirt are incised with a vertical double arrow motif.

Edward M. Stevens, an employee of the Burlington Grocery Company, became the first resident of the house in 1896.

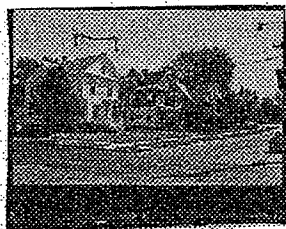
62A. Garage, 1980

This 2 bay, 1 story wood-sided garage is protected by an asphalt-shingled gable front roof.



827-31

buell st./bradley st. historic district, # 62
 Burlington, Chittenden County, Vermont
 Negative on file at VT Division for Historic Preservation
 Credit: Beth Bartz
 Date: March 1987
 Building # 62, 108 Buell St., view looking NE
 Photo 79



STATE OF VERMONT
Division of Historic Sites
Montpelier, VT 05602

HISTORIC SITES & STRUCTURES SURVEY
Individual Structure Survey Form

COUNTY:	Chittenden
TOWN:	Burlington
LOCATION:	108 Buell St.
FUNCTIONAL TYPE:	dwelling
COMMON NAME:	
OWNER:	Dana & Margueritte Hopkins
ADDRESS:	108 Buell St. Burlington, VT 05401
ACCESSIBILITY TO PUBLIC:	Yes ☐ No ☒ Restricted ☐
LEVEL OF SIGNIFICANCE:	Local ☒ State ☒ National ☐
DATE BUILT:	1895

GENERAL DESCRIPTION:

Structural System

1. Foundation: Brick ☐ Stone ☒ Concrete ☐ Concrete Block ☐
2. Wall Structure
 - a. Wood Frame: Balloon ☐ Western Platform ☐ Post & Beam ☐
 - b. Load Bearing Masonry: Brick ☐ Stone ☐ Concrete ☐ Concrete Block ☐
 - c. Iron ☐
 - d. Steel ☐
 - e. Other: ☐
3. Wall Covering: Clapboard ☒ Wood Shingle ☐ Board & Batt ☐ Shiplap ☐ Novelty ☐ Stucco ☐ Tile ☐ Brick ☐ Stone ☐ Slate ☐ Sheet Metal ☐ Asphalt Shingle ☐ Aluminum ☐
4. Roof Structure
 - a. Truss: Wood ☐ Iron ☐ Steel ☐ Concrete ☐
 - b. Vault: Brick ☐ Stone ☐ Concrete ☐
 - c. Other: rafter ☐
5. Roof Covering: Wood Shingle ☐ Asphalt Shingle ☐ Tile ☐ Slate ☒ Sheet Metal ☐ Paper ☐ Built Up ☐ Rolled ☐
6. Engineering Structure: ☐
7. Other: ☐

Appendages: Porches ☒ Towers ☐ Dormers ☐ Bay Windows ☐ Ell ☐ Chimneys ☒ Cupolas ☐ Wings ☐ Sheds ☐ Other: ☐

Number of Stories: 2 1/2 Number of Bays: 2 x 3 Entrance Location: side

Approximate Dimensions:

Roof Style: Gable ☒ Gambrel ☐ Flat ☐ Shed ☐ Hip ☐ Mansard ☐ Jerkinhead ☐ Monitor ☐ Saw Tooth ☐ Other: ☐

With Belcast ☐ With Parapet ☐ With False Front ☐

THREAT TO STRUCTURE:

No Threat ☐ Zoning ☐ Roads ☐ Development ☐ Deterioration ☐

SURVEY NUMBER:

108 Buell St.

NEGATIVE FILE NUMBER:

77-A-62

LATITUDE

LONGITUDE

U.S.G.S. QUAD. MAP:

PRESENT FORMAL NAME:

ORIGINAL FORMAL NAME:

E. M. Stevens residence

PRESENT USE: residence

ORIGINAL USE: residence

ARCHITECT/ENGINEER:

BUILDER/CONTRACTOR:

PHYSICAL CONDITION OF STRUCTURE

Excellent ☐ Good ☒

Fair ☐ Deteriorated ☐

THEME:

STYLE: Queen Anne

LOCAL ATTITUDES:

Positive ☐ Negative ☐ M ☐

Other: ☐

ADDITIONAL ARCHITECTURAL OR STRUCTURAL DESCRIPTION:

Massing - front gable orientation, cruciform plan, the arms formed by polygonal bays terminating in pedimented gables. 1-bay entrance porch with turned valence and balusters.

Fenestration - double-hung sashes, molded heads Queen Anne transom in front window and Queen Anne paired window east elevation. Sash rear entrance and lighting stair well.

Door - simple surround, molded head

Enrichments - imbricated shingles in gables and on pent roof forming the pedimented front gable steps employ cut-out patterns. Imbricated slates on roof.

RELATED STRUCTURES:

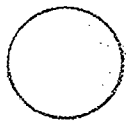
STATEMENT OF SIGNIFICANCE:

A good example of a modest Queen Anne style home. This belonged to Edward M. Stevens a traveling salesman for the Burlington Grocery Co.

REFERENCES:

BFP, 7/29/95, Sanborns, Directories

MAP: (Indicate North In Circle)



SURROUNDING ENVIRONMENT:

Open Land ☐ Woodland ☐
Scattered Buildings ☐
Moderately Built Up ☐
Densely Built Up ☒
Residential ☒ Commercial ☐
Agricultural ☐ Industrial ☐
Other: ☐

RECORDED BY:

Adele Cramer

ORGANIZATION:

VT Division for Historic Preservation

DATE RECORDED:

6/26/77

Nellie F. Austin and husband to Fannie D. Johnson, land corner Buell street and Hungerford Terrace; \$1100.

6/1/1895 → Edward Hungerford and wife to Edward M. Stevens, land north side Buell street; \$650.

Laura A. Lawrence to J. L. Southwick, land and premises, four tenement houses, east side Centre street and ...

100 NEW DWELLING HOUSES ERECTED THIS YEAR.

**A Remarkable Increase in Building—
Large Amount of Money Invested—List
of Builders up to Date—Some In-
teresting Facts.**

During the past six months there has been a very noticeable increase in the number of dwelling houses in the city. What was only a short time ago a cow pasture is now occupied by artistic, modern houses. It is also noticeable that the houses have been built separately, not in blocks. There are only 25 blocks of houses in the city. Every house has its yard and every yard is well taken care of. An act of council requires that no frame house shall be built in the fire limits except by permission of the Board of Aldermen, and then they must be roofed with non-inflammable material. The fire limits are south of North street, west of University Place, and north of Howard street. Following are the builders of dwelling houses, and their location within the fire limits:

C. A. Brownell, Loomis street.
Charles Stone, Murray street.
Fanny D. Johnson, Buell street.
A. L. Austin, Cross South Union street.
Mrs. C. C. Crooker, North Prospect street.
Alexis Deyette, North Champlain street.
Joel H. Gates, Main street.
Robert Green, Hickok Place.
Fred Howe, Church street.
W. C. Isham, Pearl street.
H. M. Lord, Mansfield avenue.
Patrick McKimble, North avenue.
T. D. Manwaring, Loomis street.
H. S. Peck, Bay View street.
Paul Bonnetty, North Willard street.
Edna J. Coffey, Buell street.
Flora M. Colby, Loomis street.
Joseph L. Hills, North Prospect street.
George Stevens, Loomis street.
Julia Meron, Green street.
E. M. Stewart, Buell street.
E. J. Booth, School street.
William Canning, Weston street.
Patrick McKimble, North avenue.
W. S. Sheswin, St. Paul street.
D. Selden, Orchard Terrace.
W. D. McMillan, Pine street.
Mrs. Anna Goddard, Greene street.
J. A. Sheahan, Henry street.
William Fitzgerald, Cherry street.
L. H. Burbo, Willard street.
J. S. O'Brien, Weston street.
Phannan & Jackson, Grant street.
A. Adst, West Loomis street.
C. B. Gray, South Union street.
John E. Bonds, Weston street.
Oliver Canning, Loomis street.
John Griffin, South Union street.
B. J. Booth, School street.
T. L. Howley, Hickok Place.
C. R. Hurdley, Buell street.
William Fitzgerald, Champlain street.
Mrs. C. C. Crooker, North Prospect street.

Arthur Dwyer, Greene street.
Oliver Canning, Cross South Union street.
This makes a total of 18 new dwelling houses erected or in process of erection, since January 1, 1895. The average cost of these 18 houses is \$4,500, a fair estimate. That would give \$81,000 inside the fire limits there have also been erected 82 other wooden structures on which it is impossible to place an accurate valuation. Outside the fire limits many dwellings have also been erected, several on Rose street, Cobblestone avenue, Lakeside Park and at the addition. It is impossible to state the exact number, but a conservative estimate would place the number at about 100.

In the year were erected 115 new buildings. During the first six months of 1895 nearly 100 dwelling houses alone have been erected beside many other buildings, notably the new science building at the University, valued at \$15,000 and the "Richardson" apartment building, valued at \$100,000. Of the dwelling houses, seventy per cent are owned by their occupants, and 30 per cent are owned clear without mortgage. It costs a quarter less to build here than in New York or Boston. Burlington, as well as Philadelphia, will soon have the proud distinction of being a "City of Homes."

John Coolidge Here for Summer School

John Coolidge enrolled for his second season of study at the University of Vermont summer school yesterday afternoon shortly after 4 o'clock. His studies will be in the field of English Literature, and he has registered in English 3, Contemporary Literature, English 4, Victorian Literature, both with Prof. W. E. Aiken, and English 5, Shakspeare, with Prof. Frederick Tupper. This program assures a full morning's work five days a week, as the courses are scheduled for 8 o'clock, 9 o'clock, and 10:30.

The President's son was accompanied to Burlington by Russell Wood, secret service man, who has been his companion at Amherst and will be with him here this summer. During the past year Wood has become very popular with John's college friends, and has taken part in many activities, attending lectures and social events, and occasionally participating in sports.

Young Coolidge is staying at the home of Mrs. Sarah E. Stevens at 108 Buell street, where he made his home last summer when in Burlington.

Burlington Design Advisory Board

149 Church Street, City Hall

Burlington, VT 05401

www.burlingtonvt.gov/PZ/DAB

Phone: (802) 865-7188

Fax: (802) 865-7195

Matthew Bushey
Ron Wanamaker
Steven Offenhartz
Tom Cullins
Eric Morrow
Philip Hammerslough, Alt.
Phil Wagner, Alt.



DESIGN ADVISORY BOARD Tuesday September 10th, 2019 at 3:00 PM Conference Room 12, City Hall, Burlington, VT

Session I – 3:00 PM – 3:30 PM

20-0188CA; 108 Buell St (RH, Ward 8E) William Spencer

Remove existing historic front porch and replace with a larger porch spanning the entire first floor frontage.

Session II – 3:30 PM – 4:15 PM

20-0203CA; 149 Beaumont Ave (ICC-UVM, Ward 1E) University of Vermont & State Agricultural College

62,250 GSF addition to the existing HSRF building. Addition will be 3-4 stories and mechanical penthouse. New green space will replace portion of existing parking lot; to include paths, landscaping, benches and lighting

The programs and services of the City of Burlington are accessible to people with disabilities. Individuals who require special arrangements to participate are encouraged to contact the Department of Permitting and Inspections at least 72 hours in advance so that proper accommodations can be arranged. For information call 865-7188 (TTY users: 865-7142).

Non-Discrimination

The City of Burlington will not tolerate unlawful harassment or discrimination on the basis of political or religious affiliation, race, color, national origin, place of birth, ancestry, age, sex, sexual orientation, gender identity, marital status, veteran status, disability, HIV positive status, crime victim status or genetic information. The City is also committed to providing proper access to services, facilities, and employment opportunities. For accessibility information or alternative formats, please contact Human Resources Department at (802) 540-2505.

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Telephone: (802) 865-7188
(802) 865-7195 (FAX)

Steve Offenhartz, Chair

Matt Bushey, Vice Chair

Tom Cullins

Ron Wanamaker

Eric Morrow

Philip A. Wagner, Alternate

Phil Hammerslough, Alternate



DESIGN ADVISORY BOARD Tuesday September 10, 2019 Conference Room 12, City Hall, Burlington, VT

Present: Ron Wanamaker, Eric Morrow, Phil Hammerslough (alternate.)

Absent: Steve Offenhartz, Matt Bushey, Tom Cullins, Phil Wagner (alternate.)

Staff present: Mary O'Neil

Applicants present: William B. Spencer (owner, 108 Buell), Lani Ravin (UVM Campus Planning), Keith Robinson (Architect, Black River), Eric Gagnon (Lerner School of Medicine), Anthony Rock (UVM Transportation and Parking Administration), Kate Cioffi, (UVM), Paula Carlaccini (Facilities Design & Construction), Derek Reid (Krebs and Lansing.)

1. ZP20-0188CA; 108 Buell Street

Motion by Eric Morrow: I move we deny the application, based on lack of detail in plans and lack of deference to the historic building.

2nd – Phil Hammerslough.

Vote 3-0.

Motion carries.

2. ZP20-0203CA; 149 Beaumont Avenue

Motion by Eric Morrow: I move we recommend advancement to the DRB with a favorable review conditioned upon compliance with parking standards of Article 8 of the Comprehensive Development Ordinance.

2nd – Phil Hammerslough

Vote 3-0.

Motion carries.