

Burlington Planning Commission

149 Church Street
Burlington, VT 05401
Telephone: (802) 865-7188
(802) 865-7195 (FAX)
(802) 865-7144 (TTY)

www.burlingtonvt.gov/pz

*Andy Montroll, Chair
Bruce Baker, Vice-Chair
Yves Bradley
Alexander Friend
Michael Gaughan
Emily Lee
Brynne Martin*

Regular Meeting Burlington Planning Commission

Tuesday, December 14, 2021, 6:30 P.M.

Remote & Virtual Meeting via Zoom

In-Person Option Available:

Bushor Conference Room (Room 102), 1st Floor of City Hall, 149 Church St.

To Join the Meeting on a Computer

Link: <https://us02web.zoom.us/j/84210936438>

To Join the Meeting on a Phone

Number: +1 312 626 6799 Meeting ID: 842 1093 6438

AGENDA

I. Agenda

II. Public Forum *See details on pg 3 of packet for participating remotely.*

III. Chair's Report

IV. Director's Report

V. Discussion: Proposed CDO Amendment- Minimum Parking & TDM

Last month, the Commission was invited to join the Council Ordinance Committee to learn about and discuss an amendment proposed by Councilor Hanson to transition from minimum to maximum parking requirements citywide and to expand Transportation Demand Management (TDM) requirements to other parking districts. The Commission will discuss any additional comments on the proposed amendment it would like to provide to the Council Ordinance Committee ahead of its next meeting. Documents related to this item are enclosed in the agenda packet on page 4-35.

Staff Recommendation: Provide any additional input to staff for a communication to the Council Ordinance Committee.

VI. Letter of Support – Planner Position

The Director will present a request to the City Council for the creation of a Planner position. Per previous discussions about the Commission's support for additional resources for department staffing and work plan, the Commission will discuss a draft letter of support to the Council. The draft letter will be provided during the meeting.

Staff Recommendation: Provide additional edits to staff regarding the draft letter, and approve for communication to City Council.

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. Written comments on items may be directed to the Planning Commission at 149 Church Street, Burlington, VT 05401, or at mtuttle@burlingtonvt.gov

VII. 2022 Meeting Schedule

The Commission will review and approve its 2022 Regular Meeting schedule and proposed committee meetings. A proposed calendar is enclosed in the agenda packet on page 36.

Staff Recommendation: Approve the 2022 Regular Meeting and committee meeting schedules.

VIII. DRB Representatives to Committees

The Commission will consider the DRB representatives for its Long Range and Ordinance Committees, who had not yet been identified during the annual reorganization meeting this summer.

- Ordinance Committee: Caitlin Halpert
- Long Range Committee: A.J. LaRosa

Staff Recommendation: Approve nomination of DRB representatives to committees.

IX. Commissioner Items

- a. Upcoming Meetings will be hybrid/online unless otherwise noted –
 - i. Tuesday, January 11, 2022 at 6:30pm
 - ii. Tuesday, January 26, 2022 at 6:30pm
- b. Committee Updates
 - i. Executive Committee meeting Tuesday, Jan. 26 at 5:30pm

X. Minutes & Communications

- a. The minutes of the November 9, 2021 meeting are enclosed in the agenda packet on page 37.
- b. Communications are enclosed in the agenda packet on page 40-129.

XI. Adjourn

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Guidance for Participating in a Virtual Planning Commission Meeting

As social distancing measures to preserve public health and safety continue to be required to prevent the spread of COVID-19, or are recommended as a standard practice, the Office of City Planning will be supporting the Planning Commission to conduct their meetings online via Zoom. Here is information about how to join a virtual meeting, and what to expect while participating.

General Guidance for Public Participation

Please remember that in this digital meeting environment, meetings are open to the public and anyone may be watching or listening even if you cannot see them. Meetings will be recorded, and both the recording and chat content of the meeting will be maintained as a public record.

Please ensure your display photo and screen name are professional, such as using your first and last name. Please test your audio and video prior to the start of a meeting, and familiarize yourself with how to join a meeting by your chosen method. And finally, please be patient with us. Technology doesn't always work as planned, and we are all learning how to hold a successful virtual meeting!

How to Join a Virtual Meeting

Zoom allows participation via either computer or telephone. Each agenda for a meeting that will be conducted virtually will include details about how to join via either of these options, including a web address, phone number, Meeting ID, and password.

If you participate via computer, you have the option of seeing Commissioner videos and any presentation materials that may be shared. If you use either a standard phone or cell phone to call in, you will only hear the audio portion of the meeting. If you join via a smartphone, you may have the option to download the Zoom app, which will enable you to see and hear the meeting.

How to Participate in a Virtual Meeting

During meetings, only Planning Commission members and limited staff members will be viewed on video. Members of the public attending a meeting will be muted, except when invited to speak during public forum or a public hearing. Whether members of the public can speak at other times during the meeting is the discretion of the Chair.

If you want to speak during public forum, please take the following steps to assist us in making this process run as smoothly as possible:

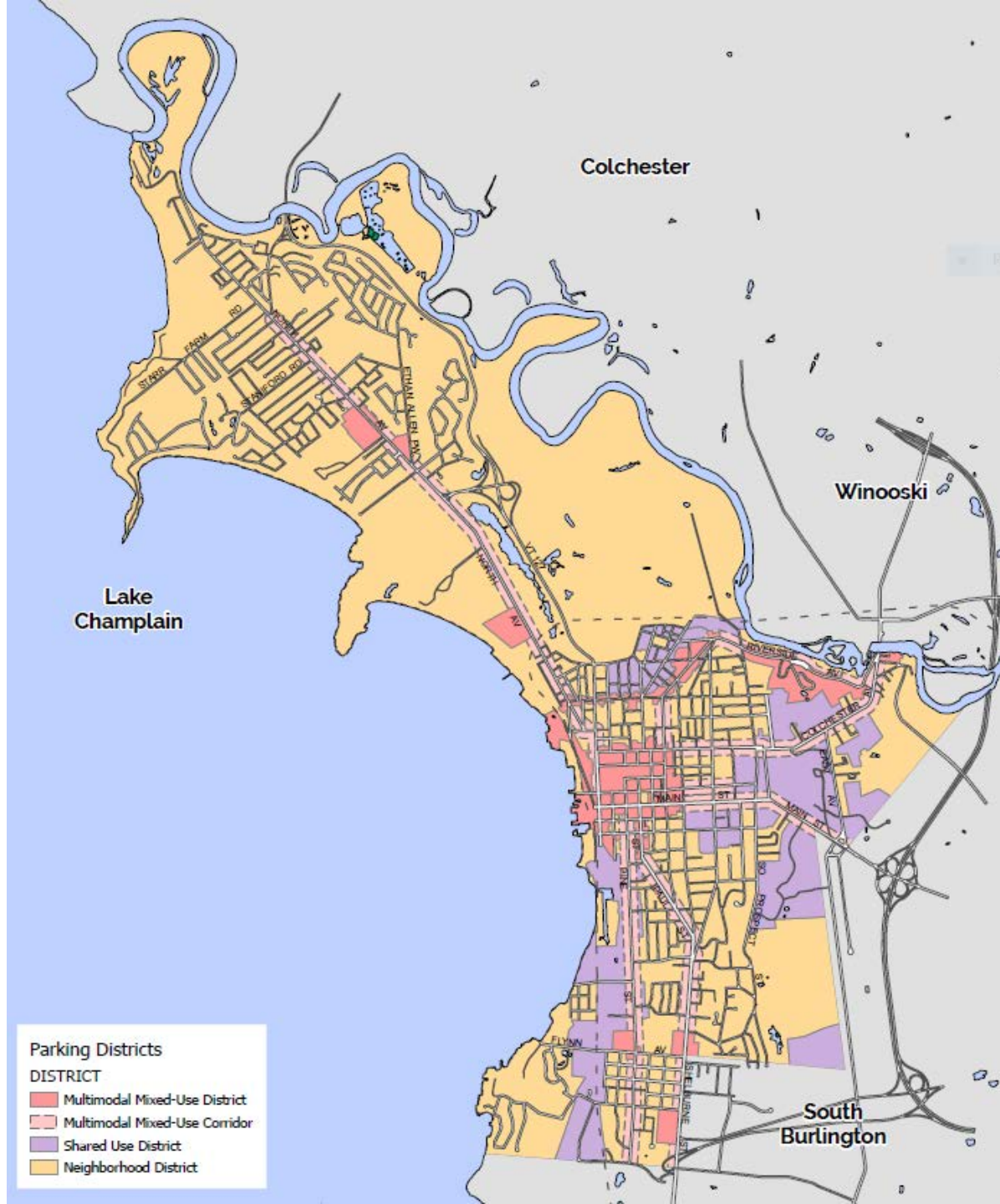
- Email staff at mtuttle@burlingtonvt.gov by 5pm on the day before a meeting to indicate your interest in speaking. You do not need to provide your comments. Staff will enable your microphone as your name is called from a list of interested speakers.
- During a meeting, you can use the "Raise Hand" feature, or indicate in a chat message that you wish to speak during public forum. Staff will enable your microphone as your name is called.
- If you are interested in submitting your comments in writing instead of speaking during the meeting, you may do so by 5pm the day before a meeting, they will be forwarded to the Commissioners ahead of the meeting.

Discussion Topics

- Introduce Amendment & Purpose
- Update on Implementation of Recent Article 8 Amendments
- Staff Assessment of Draft Ordinance
- Process and Timeline
- Next Steps

Overview of Proposed Amendment

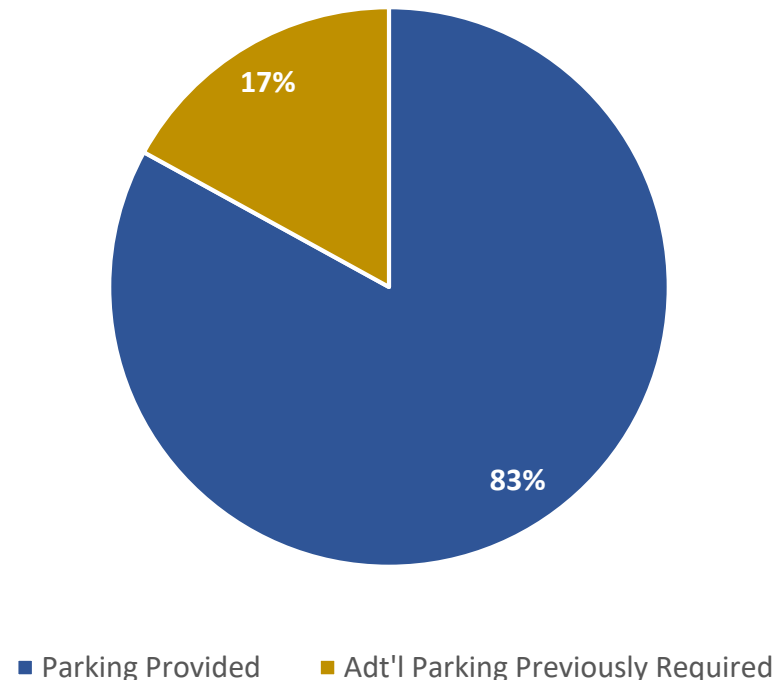
- Eliminates Minimum On-Site Parking requirements citywide, no change to existing parking districts
- Translates Minimum On-Site Parking requirements into Maximum On-Site Parking allowances
 - *Proposed Maximums largely reflect the ordinance's existing Maximum limits*
- Creates new tiers to require Transportation Demand Management Program (TDM) in Shared Use and Neighborhood Parking districts
 - *Threshold for non-residential (8,000 s.f.) and mixed-use buildings (15,000 s.f.) is the same as the existing district*
 - *Residential threshold is 5 dwelling units (change from 10 units in existing district)*
- Maintains the TDM Program requirements of the existing ordinance



Update on Recent Amendments

Since Article 8 Amendments were adopted in December 2020:

Projects Requiring TDM Plan



- 4 approved projects; 2 pending projects
 - 2 mixed use projects
 - 4 entirely residential* with mix of new & additional units
- 5 projects* include 604 parking spaces, which is 83% of the 725 spaces that would have been required under previous minimum parking standards
- All require annual reporting on outreach & education, TDM strategies, and parking management

**One is pending permit is a nursing home seeking a waiver from Max. Parking limits; this project is not counted in parking total*

Update on Recent Amendments

Since Article 8 Amendments were adopted in December 2020:

Small-Scale Projects (No TDM)

- 17 approved projects
 - 10 primarily residential projects
 - 5 commercial projects
- 104 parking spaces would have been required under previous minimum parking standards
- Projects are all under the thresholds (10 units or 8,000 sq.ft.) that would require TDM plans

Staff Feedback on Draft Ord.

The following questions and considerations are offered for discussion:

- Translation of minimums to maximums needs some cleanup to address “0” maximum limits and for projects with Inclusionary Housing Units
- Consider how to address existing permits in Shared Use & Neighborhood Parking Districts
 - *I.e. specify whether to release or maintain existing permit requirements*
- Consider necessity of Shared Parking for Off-Site Use provisions
- Need to determine how this changes the Joint Institutional Parking Management Plan requirements
- Current TDM standards require ongoing administration; expansion of TDM requirements will require additional staff resources
- Consider splitting the question: maximum parking vs TDM requirements
 - *FY22 Budget for Office of City Planning includes a citywide TDM Strategy and an Impact Fee Study; these projects should inform future TDM requirements*

Process & Timeline

- Recommend outreach to include at least:
 - posting on FPF; presentations to NPA's; update to participants in 2019-2020 parking amendment discussions
- Amendment likely to take at least 6 months until adoption by Council:
 - Council Ordinance Committee outreach & deliberations
 - Referral back to City Council for discussion/deliberation; if supported, must be referred to Planning Commission (per State Statute)
 - Planning Commission holds Public Hearing & approve required Municipal Bylaw Amendment Report
 - Council action to Warn Public Hearing
 - Second Read, Public Hearing & Adoption



OFFICE OF THE CLERK/TREASURER

City of Burlington

City Hall, Room 20, 149 Church Street, Burlington, VT 05401

Voice (802) 865-7000

Fax (802) 865-7014

TTY (802) 865-7142

MEMORANDUM

TO: Ordinance Committee Members

FROM: Lori Olberg, Licensing, Voting and Records Coordinator

DATE: September 30, 2021

SUBJECT: 09/27/21 City Council Ordinance: CDO—Minimum and Maximum Parking Requirements and Transportation Demand Management

Enclosed please find a copy of the ordinances that was referred to your Committee for consideration. Please keep this as part of your records.

Thank you.

CITY OF BURLINGTON

ORDINANCE

7.02

Sponsor: Councilor Hanson

Public Hearing Dates: _____

In the Year Two Thousand Twenty-One

First reading: _____

Referred to: Ordinance Committee

Rules suspended and placed in all stages of passage: _____

Second reading: _____

Action: _____

Date: _____

Signed by Mayor: _____

Published: _____

Effective: _____

An Ordinance in Relation to

Comprehensive Development Ordinance—
Minimum and Maximum Parking Requirements and
Transportation Demand Management

It is hereby Ordained by the City Council of the City of Burlington as follows:

That Appendix A, Comprehensive Development Ordinance, of the Code of Ordinances of the City of Burlington, Article 8: Parking, Part 1: General Requirements, be and hereby is amended by amending Sections 8.1.3, Parking Districts, Parking Districts, 8.1.6, Existing Structures: Exemption in Downtown District, 8.1.8, Minimum Off-Street Parking Requirements, Table 8.1.8-1 Maximum Off-Street Parking Requirements, 8.1.9, Maximum Parking Spaces, 8.1.12 Limitations, Location, Use of Facilities, 8.1.15 Waivers from Parking Requirements/Parking Management Plans, and Section 8.1.16 Transportation Demand Management, thereto to read as follows:

Sec. 8.1.3 Parking Districts

The demand for parking is highly dependent on the context within which a given use or structure is located. Factors such as proximity to other related uses, availability of public transportation and alternative forms of and supports for transportation, the density of land uses, and the ability to share parking with nearby uses are all factors which influence the demand for individual and dedicated off-site parking. For the purposes of this Article, the following three (3) Parking Districts as illustrated in Map 8.1.3-1 are hereby created:

(a) Neighborhood Parking District:

This parking district ~~establishes the baseline of parking requirements throughout the city where~~ encompasses the primarily residential neighborhoods of the city where the demand for off-site parking is largely dependent on the needs and characteristics of and transportation resources available to an individual site or land use.

(b) Shared Use Parking District:

This parking district ~~reduces the requirements from the baseline standards recognizing~~ recognizes that opportunities exist to share parking demand between related nearby land uses, and that travel to and between these uses may not be strictly automobile dependent.

(c) Multimodal Mixed-Use Parking District:

This parking district ~~recognizes that eliminates the minimum on-site parking requirements of Sec. 8.1.8 recognizing~~ the opportunity for extensive sharing of parking demand between nearby mixed land uses makes travel to and between proximate land uses largely independent from an automobile; and that an array of non-vehicular transportation modes, public parking facilities, and frequent transit service greatly reduces the need for independent on-site parking for individual land uses.

This Parking District includes all properties in the following Zoning Districts:

- (a) Downtown Core (FD6)
- (b) Downtown Center (FD5)
- (c) Downtown Waterfront – Public Trust (DW-PT)
- (d) Neighborhood Activity Center (NAC)
- (e) Neighborhood Mixed Use (NMU)
- (f) NAC – Riverside (NAC-R)
- (g) NAC – Cambrian Rise (NAC-CR)

With the exception of those properties subject to Part 3 - Institutional Parking Management Plans, this Parking District also includes all properties with street frontage on the following major thoroughfares to a maximum depth of 200-ft.:

- (a) North Avenue from Battery Park to Plattsburg Avenue
- (b) Colchester Avenue
- (c) Pearl Street
- (d) North Winooski Avenue
- (e) Riverside Avenue from N. Winooski Ave to Colchester Ave
- (f) Battery Street
- (g) Main Street
- (h) College Street to South Williams Street
- (i) Pine Street
- (j) Saint Paul Street
- (k) Shelburne Street

With respect to permits issued with parking requirements in this Parking District prior to the effective date of the amendment to eliminate minimum onsite parking, an administrative permit amendment may be requested to remove the parking requirement based upon the change in regulation. This does not apply to permits containing public parking provided in exchange for an Article 4 Development Bonus (See Sec. 4.4.1(d)(5)(A). For those permits, the public parking provided shall be maintained.

Map 8.1.3-1 Parking Districts As written.

Secs. 8.1.4 – 8.1.5 As written.

~~Sec. 8.1.6 Affordable Housing and Historic Buildings Exemption~~ (Reserved)

~~Regardless of location, the Minimum Off-Street Parking Requirements found under Sec. 8.1.8 below shall not apply to any of the following:~~

- ~~(a) The creation of permanently affordable inclusionary housing units satisfying the applicable provisions of Article 9 Part 1—Inclusionary Housing (see Sec. 9.1.10 Income Eligibility and Sec. 9.1.11 Calculating Rents and Selling Prices);~~
- ~~(b) The adaptive reuse and/or substantial rehabilitation of a building listed on the State or National Register of Historic Places; and,~~
- ~~(c) The creation of an Accessory Dwelling Unit subject to the provisions of Sec. 5.4.5.~~

Sec. 8.1.7 Non-Conforming Residential Structure As written.

Sec. 8.1.8 Minimum Off-Street Parking Requirements

Requirements for a minimum number of off-street parking spaces have been recognized as an impediment to building housing and other desired uses, inhibit the expansion of alternative transportation and transportation demand management, and act as an instrument to overbuild parking and incentivize single occupancy automobile use and are, therefore, eliminated in all parking districts for all uses.

A minimum number of off-street parking spaces for all uses and structures shall be provided in accordance with Table 8.1.8-1 below:

(a) Where a use is not listed, the minimum parking requirements shall be determined by the administrative officer based upon a determination that the use is substantially equivalent in use, nature, and impact to a listed use.

(b) When the calculation yields a fractional number of required spaces, the number of spaces shall be rounded to the nearest whole number.

(c) The minimum off-street parking requirement for a development with inclusionary housing units provided on-site shall be reduced by the percentage of inclusionary units required by Article 9.

(Example: A 100-unit residential development with a requirement of 15% inclusionary units shall provide minimum off-street parking based on 85 dwelling units.)

Table 8.1.8 Minimum Off-Street Parking Requirements

Table 8.1.8-1 Minimum Off-Street Parking Requirements			
	Neighborhood Districts	Shared-Use Districts	Multimodal Mixed-Use Districts
RESIDENTIAL USES¹	Per Dwelling Unit except as noted		
Multi-unit attached dwelling units, studio units or 1-bedroom dwelling unit.	2	1	0
Single Family detached and Duplex	2	2	0
1. Adjusted for development with inclusionary housing units per Sec. 8.1.8(c).			
RESIDENTIAL USES—SPECIAL	Per Dwelling Unit except as noted		
Assisted Living	0.5	0.5	0
Bed and Breakfast (per room, in addition to single-family residence)	1	0.75	0
Boarding House (per two (2) beds)	1	0.75	0
Community House	1	0.75	0
Convalescent Home (per four (4) beds)	1	1	0
Dormitory (per two (2) beds)	1	1	0
Emergency Shelter	0	0	0
Group Home (per two (2) beds)	1	1	0

Table 8.1.8-1 Minimum Off-Street Parking Requirements			
	Neighborhood Districts	Shared-Use Districts	Multimodal Mixed-Use Districts
Historic Inn (per room, in addition to single-family residence)	1	0.75	0
Sorority & Fraternity (per two (2) beds)	1	1	0
NON-RESIDENTIAL USES	Per 1,000 square feet of gross floor area (gfa) except as noted		
Adult Day Care (per two (2) employees)	1	1	0
Agricultural Use	0	0	0
Amusement Arcade	2	1	0
Animal Boarding/Kennel/Shelter	2.5	1.5	0
Animal Grooming (per grooming station)	1	1	0
Animal Hospitals/Veterinarian Office	3	2	0
Appliance & Furniture Sales/Service	2.5	1	0
Aquarium	1.3	1	0
Art Gallery/Studio	3.3	2.5	0
Auction Houses	3.3	2.5	0
Automobile & Marine Parts Sales	2.5	1.5	0
Automobile Body Shop	2 plus 1/bay	2 plus 1/bay	0
Automobile Repair/Service	2 plus 1/bay	2 plus 1/bay	0
Automobile Sales—New & Used	2	2	0
Bakery	2.5	2.5	0
Bank, Credit Union	2.5	2	0
Bar/Tavern	4	3	0
Beauty/Barber Shop (per station/chair)	1	1	0
Bicycle Sales/Repair	2.5	1	0
Billiard Parlor (per game table)	1	1	0
Boat Repair/Service	2	2	0
Boat Sales/Rental	2	2	0
Boat Storage	3	2	0

Table 8.1.8-1 Minimum Off-Street Parking Requirements			
	Neighborhood Districts	Shared-Use Districts	Multimodal Mixed-Use Districts
Bowling Alley (per lane)	3	2	0
Building Material Sales	3.3	2.5	0
Café (per four (4) seats)	1	0	0
Camp Ground (per camping space)	1	1	0
Car Wash (stacking spaces per wash bay)	4	4	0
Cemetery	0	0	0
Cinema (per four (4) seats)	1	1	0
Club, Membership	3.3	2.5	0
Community Center	3.3	2.5	0
Community Garden (per ten (10) plots)	1	1	0
Conference Center	3	2	0
Contractor Yard (per 1,000 gfa of office space)	2.5	2	0
Convenience Store	3	2	0
Convention Center	n/a	3	0
Courthouse	n/a	3.3	0
Crematory (per FTE employee)	1	1	0
Crisis Counseling Center	4	3	0
Daycare—Home (6 children or less)	None (0)	None (0)	0
Daycare (per two (2) employees)	1 plus 1 drop-off per 5 children	1 plus 1 drop-off per 5 children	0
Dental Lab	2	1	0
Distribution Center (per 3,000 gfa)	1	0.75	0
Dry Cleaning Plant	1.3	1	0
Dry Cleaning Service	2.5	2	0
Film Studio	3.3	2.5	0
Fire Station (per apparatus)	2	2	0

Table 8.1.8-1 Minimum Off-Street Parking Requirements			
	Neighborhood Districts	Shared-Use Districts	Multimodal Mixed-Use Districts
Food & Beverage Processing	1.3, plus 3 per 1,000 gfa devoted to patron use	1, plus 2 per 1,000 gfa devoted to patron use	0
Fuel Service Station (per employee/shift)	1	1	0
Funeral Home (per four (4) seats)	1	1	0
Garden Supply Store (per 1,000 gfa of retail area.)	3	2	0
General Merchandise/Retail	3	2	0
Grocery Store	3	2	0
Hazardous Waste Collection/Disposal (per two (2) employees on the largest shift)	1	1	0
Health Club	3	2	0
Health Studio	2	1	0
Hospitals (per patient bed)	2	2	0
Hostel (per two (2) beds)	0.5	0.5	0
Hotel/Motel (per room)	1	0.75	0
Laundromats (per washing machine)	1	1	0
Library	1.3	1	0
Lumber Yard (per 1,000 gfa of retail area.)	3	2	0
Manufacturing-Light	1.3, plus 3 per 1,000 gfa devoted to patron use.	1.3, plus 2 per 1,000 gfa devoted to patron use.	0
Manufacturing	1.3, plus 3 per 1,000 gfa devoted to patron use.	1.3, plus 2 per 1,000 gfa devoted to patron use.	0
Marina (per berth)	0.5	0.5	0

Table 8.1.8-1 Minimum Off-Street Parking Requirements			
	Neighborhood Districts	Shared-Use Districts	Multimodal Mixed-Use Districts
Medical Lab	2	1	0
Museum	1.3	1	0
Office—General	2	2	0
Office—Medical, Dental	3	2	0
Office—Technical	2	2	0
Open-Air Markets	0	0	0
Operations Center—Taxi (per three (3) employees)	1	1	0
Operations Center—Truck/Bus (per 3,000 gfa)	1	0.75	0
Park (per playing-area)	5	0	0
Parking Garage—Private	0	0	0
Parking Lot—Private	0	0	0
Performing Arts Center (per four (4) seats)	1	1	0
Performing Arts Studio	1	0	0
Pet Store	2.5	1	0
Pharmacy	3	2	0
Photo Studio	2.5	1	0
Photography Lab	1	1	0
Police Station	2.5	2	0
Post Office	1.3	1	0
Post Office—Local	2	2	0
Printing Plant	1.3	1	0
Printing Shop	2	2	0
Public Transit Terminal	1 per 200 gfa of public waiting space	1 per 200 gfa of public waiting space	0
Public Works Yard/Garage	0	0	0

Table 8.1.8-1 Minimum Off-Street Parking Requirements			
	Neighborhood Districts	Shared-Use Districts	Multimodal Mixed-Use Districts
Radio & TV Studio	2	2	0
Rail Equip. Storage & Repair	0	0	0
Recording Studio	1.3	1	0
Recreational Facility—Indoor (per four (4) seats)	1	1	0
Recreational Facility—Outdoor (per playing field)	15	10	0
Recreational Facility—Outdoor Commercial	Larger of 1 per 4 seats or 15 per playing field	Larger of 1 per 4 seats or 10 per playing field	0
Recreational Vehicle Sales—New and Used	2	2	0
Recycling Center—Large above 2,000 gfa	0	0	0
Recycling Center—Small 2,000 gfa or less	0	0	0
Research Lab	2.5	2	0
Restaurant	4	3	0
Restaurant—Take-Out	4	3	0
Salon/Spa	4	4	0
School—Secondary (per Classroom)	7	5	0
School—Primary (per Classroom)	1.5	1.5	0
School—Preschool (per two (2) employees)	1 plus 1 drop-off per 5 children	1 plus 1 drop-off per 5 children	0
School—Trade/Professional	5	3	0
School, Post-Secondary	2	2	0
Solid Waste Facility—Incinerator, Landfill, Transfer Station	0	0	0
Tailor Shop	2	1	0
Vehicle Salvage	0	0	0

Table 8.1.8-1 Minimum Off-Street Parking Requirements			
	Neighborhood Districts	Shared-Use Districts	Multimodal Mixed-Use Districts
Warehouse	0.5	0.35	0
Warehouse—Self Storage Facility	1-per-resident manager, plus 1 per 100 leasable storage spaces	1-per resident manager, plus 1 per 100-leasable storage spaces	0
Warehouse—Retail	3.3	2.5	0
Wholesale Sales	1.3	1	0
Worship, Place of (per four (4) seats)	1	1	0

Sec. 8.1.9 Maximum On-Site Parking Spaces

The total number of off-street parking spaces provided in any parking district shall not be more than as required in Table 8.1.9-1 below:

(a) Where a use is not listed, the maximum parking requirements shall be determined by the administrative officer based upon a determination that the use is substantially equivalent in use, nature, and impact to a listed use.

(b) The maximum off-street parking requirement for a development with inclusionary housing units provided on site shall be reduced by the percentage of inclusionary units required by Article 9.

(Example: A 100-unit residential development with a requirement of 15% inclusionary units shall provide maximum off-street parking based on 85 dwelling units.)

Table 8.1.9-1 Maximum Off-Street Parking Requirements		
Neighborhood District	Shared-Use District	Multimodal Mixed-Use District
125% of the minimum number of spaces required for the Neighborhood Parking District for any given use as required in Table 8.1.8-1	100% of the minimum number of spaces required for the Neighborhood Parking District for any given use as required in Table 8.1.8-1	100% of the minimum number of spaces required for the Shared Parking District for any given use as required in Table 8.1.8-1

<u>Table 8.1.9-1 Maximum Off-Street Parking Requirements</u>			
	<u>Neighborhood Districts</u>	<u>Shared Use Districts</u>	<u>Multimodal Mixed-Use Districts</u>
<u>RESIDENTIAL USES¹</u>	<u>Per Dwelling Unit except as noted</u>		
<u>Multi-unit attached dwelling units, studio units or 1-bedroom dwelling unit.</u>	<u>2.5</u>	<u>2</u>	<u>1</u>
<u>Single Family detached and Duplex</u>	<u>2.5</u>	<u>2</u>	<u>2</u>
1. <u>Adjusted for development with inclusionary housing units per Sec. 8.1.8(c).</u>			
<u>RESIDENTIAL USES - SPECIAL¹</u>	<u>Per Dwelling Unit except as noted</u>		
<u>Assisted Living</u>	<u>0.75</u>	<u>0.5</u>	<u>0.5</u>
<u>Bed and Breakfast (per room, in addition to single-family residence)</u>	<u>1.25</u>	<u>1</u>	<u>0.75</u>
<u>Boarding House (per two (2) beds)</u>	<u>1.25</u>	<u>1</u>	<u>0.75</u>
<u>Community House</u>	<u>1.25</u>	<u>1</u>	<u>0.75</u>
<u>Convalescent Home (per four (4) beds)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>Dormitory (per two (2) beds)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>Emergency Shelter</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Group Home (per two (2) beds)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>Historic Inn (per room, in addition to single-family residence)</u>	<u>1.25</u>	<u>1</u>	<u>0.75</u>
<u>Sorority & Fraternity (per two (2) beds)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>NON-RESIDENTIAL USES</u>	<u>Per 1,000 square feet of gross floor area (gfa) except as noted</u>		
<u>Adult Day Care (per two (2) employees)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>Agricultural Use</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Amusement Arcade</u>	<u>2.5</u>	<u>2</u>	<u>1</u>
<u>Animal Boarding/Kennel/Shelter</u>	<u>3.25</u>	<u>2.5</u>	<u>1.5</u>
<u>Animal Grooming (per grooming station)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>Animal Hospitals/Veterinarian Office</u>	<u>3.75</u>	<u>3</u>	<u>2</u>
<u>Appliance & Furniture Sales/Service</u>	<u>3.25</u>	<u>2.5</u>	<u>1</u>

Table 8.1.9-1 Maximum Off-Street Parking Requirements

	<u>Neighborhood Districts</u>	<u>Shared Use Districts</u>	<u>Multimodal Mixed-Use Districts</u>
<u>Aquarium</u>	<u>1.6</u>	<u>1.3</u>	<u>1</u>
<u>Art Gallery/Studio</u>	<u>4.1</u>	<u>3.3</u>	<u>2.5</u>
<u>Auction Houses</u>	<u>4.1</u>	<u>3.3</u>	<u>2.5</u>
<u>Automobile & Marine Parts Sales</u>	<u>3.25</u>	<u>2.5</u>	<u>1.5</u>
<u>Automobile Body Shop</u>	<u>2.5 plus 1.25/bay</u>	<u>2 plus 1/bay</u>	<u>2 plus 1/bay</u>
<u>Automobile Repair/Service</u>	<u>2.5 plus 1.25/bay</u>	<u>2 plus 1/bay</u>	<u>2 plus 1/bay</u>
<u>Automobile Sales – New & Used</u>	<u>2.5</u>	<u>2</u>	<u>2</u>
<u>Bakery</u>	<u>3.25</u>	<u>2.5</u>	<u>2.5</u>
<u>Bank, Credit Union</u>	<u>3.25</u>	<u>2.5</u>	<u>2</u>
<u>Bar/Tavern</u>	<u>5</u>	<u>4</u>	<u>3</u>
<u>Beauty/Barber Shop (per station/chair)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>Bicycle Sales/Repair</u>	<u>3.25</u>	<u>2.5</u>	<u>1</u>
<u>Billiard Parlor (per game table)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>Boat Repair/Service</u>	<u>2.5</u>	<u>2</u>	<u>2</u>
<u>Boat Sales/Rental</u>	<u>2.5</u>	<u>2</u>	<u>2</u>
<u>Boat Storage</u>	<u>3.75</u>	<u>3</u>	<u>2</u>
<u>Bowling Alley (per lane)</u>	<u>3.75</u>	<u>3</u>	<u>2</u>
<u>Building Material Sales</u>	<u>4.1</u>	<u>3.3</u>	<u>2.5</u>
<u>Café (per four (4) seats)</u>	<u>1.25</u>	<u>1</u>	<u>0</u>
<u>Camp Ground (per camping space)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>Car Wash (stacking spaces per wash bay)</u>	<u>5</u>	<u>4</u>	<u>4</u>
<u>Cemetery</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Cinema (per four (4) seats)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>Club, Membership</u>	<u>4.1</u>	<u>3.3</u>	<u>2.5</u>
<u>Community Center</u>	<u>4.1</u>	<u>3.3</u>	<u>2.5</u>
<u>Community Garden (per ten (10) plots)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>Conference Center</u>	<u>3.75</u>	<u>3</u>	<u>2</u>

<u>Table 8.1.9-1 Maximum Off-Street Parking Requirements</u>			
	<u>Neighborhood Districts</u>	<u>Shared Use Districts</u>	<u>Multimodal Mixed-Use Districts</u>
<u>Contractor Yard (per 1,000 gfa of office space)</u>	<u>3.25</u>	<u>2.5</u>	<u>2</u>
<u>Convenience Store</u>	<u>3.75</u>	<u>3</u>	<u>2</u>
<u>Convention Center</u>	<u>n/a</u>	<u>n/a</u>	<u>3</u>
<u>Courthouse</u>	<u>n/a</u>	<u>n/a</u>	<u>3.3</u>
<u>Crematory (per FTE employee)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>Crisis Counseling Center</u>	<u>5.</u>	<u>4</u>	<u>3</u>
<u>Daycare - Home (6 children or less)</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Daycare - (per two (2) employees)</u>	<u>1.25 plus 1.25 drop-off per 5 children</u>	<u>1 plus 1 drop-off per 5 children</u>	<u>1 plus 1 drop-off per 5 children</u>
<u>Dental Lab</u>	<u>2.75</u>	<u>2</u>	<u>1</u>
<u>Distribution Center (per 3,000 gfa)</u>	<u>1.25</u>	<u>1</u>	<u>0.75</u>
<u>Dry Cleaning Plant</u>	<u>1.6</u>	<u>1.3</u>	<u>1</u>
<u>Dry Cleaning Service</u>	<u>3.1</u>	<u>2.5</u>	<u>2</u>
<u>Film Studio</u>	<u>4.1</u>	<u>3.3</u>	<u>2.5</u>
<u>Fire Station (per apparatus)</u>	<u>2.75</u>	<u>2</u>	<u>2</u>
<u>Food & Beverage Processing</u>	<u>1.6, plus 3.75 per 1,000 gfa devoted to patron use</u>	<u>1.3, plus 3 per 1,000 gfa devoted to patron use</u>	<u>1, plus 2 per 1,000 gfa devoted to patron use</u>
<u>Fuel Service Station (per employee/shift)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>Funeral Home (per four (4) seats)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>Garden Supply Store (per 1,000 gfa of retail area.)</u>	<u>3.75</u>	<u>3</u>	<u>2</u>
<u>General Merchandise/Retail</u>	<u>3.75</u>	<u>3</u>	<u>2</u>
<u>Grocery Store</u>	<u>3.75</u>	<u>3</u>	<u>2</u>
<u>Hazardous Waste Collection/Disposal (per two (2) employees on the largest shift)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>Health Club</u>	<u>3.75</u>	<u>3</u>	<u>2</u>

<u>Table 8.1.9-1 Maximum Off-Street Parking Requirements</u>			
	<u>Neighborhood Districts</u>	<u>Shared Use Districts</u>	<u>Multimodal Mixed-Use Districts</u>
<u>Health Studio</u>	<u>2.75</u>	<u>2</u>	<u>1</u>
<u>Hospitals (per patient bed)</u>	<u>2.75</u>	<u>2</u>	<u>2</u>
<u>Hostel (per two (2) beds)</u>	<u>0.6</u>	<u>0.5</u>	<u>0.5</u>
<u>Hotel/Motel (per room)</u>	<u>1.25</u>	<u>1</u>	<u>0.75</u>
<u>Laundromats (per washing machine)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>Library</u>	<u>1.6</u>	<u>1.3</u>	<u>1</u>
<u>Lumber Yard (per 1,000 gfa of retail area.)</u>	<u>3.75</u>	<u>3</u>	<u>2</u>
<u>Manufacturing-Light</u>	<u>1.6, plus 3.75 per 1,000 gfa devoted to patron use.</u>	<u>1.3, plus 3 per 1,000 gfa devoted to patron use.</u>	<u>1.3, plus 2 per 1,000 gfa devoted to patron use.</u>
<u>Manufacturing</u>	<u>1.6, plus 3.75 per 1,000 gfa devoted to patron use.</u>	<u>1.3, plus 3 per 1,000 gfa devoted to patron use.</u>	<u>1.3, plus 2 per 1,000 gfa devoted to patron use.</u>
<u>Marina (per berth)</u>	<u>0.6</u>	<u>0.5</u>	<u>0.5</u>
<u>Medical Lab</u>	<u>2.75</u>	<u>2</u>	<u>1</u>
<u>Museum</u>	<u>1.6</u>	<u>1.3</u>	<u>1</u>
<u>Office - General</u>	<u>2.5</u>	<u>2</u>	<u>2</u>
<u>Office - Medical, Dental</u>	<u>3.75</u>	<u>3</u>	<u>2</u>
<u>Office – Technical</u>	<u>2.5</u>	<u>2</u>	<u>2</u>
<u>Open Air Markets</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Operations Center - Taxi (per three (3) employees)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>Operations Center - Truck/Bus (per 3,000 gfa)</u>	<u>1.25</u>	<u>1</u>	<u>0.75</u>
<u>Park (per playing area)</u>	<u>6.25</u>	<u>5</u>	<u>0</u>
<u>Parking Garage – Private</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

<u>Table 8.1.9-1 Maximum Off-Street Parking Requirements</u>			
	<u>Neighborhood Districts</u>	<u>Shared Use Districts</u>	<u>Multimodal Mixed-Use Districts</u>
<u>Parking Lot – Private</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
<u>Performing Arts Center (per four (4) seats)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>Performing Arts Studio</u>	<u>1.25</u>	<u>1</u>	<u>0</u>
<u>Pet Store</u>	<u>3.1</u>	<u>2.5</u>	<u>1</u>
<u>Pharmacy</u>	<u>3.75</u>	<u>3</u>	<u>2</u>
<u>Photo Studio</u>	<u>3.1</u>	<u>2.5</u>	<u>1</u>
<u>Photography Lab</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>Police Station</u>	<u>3.1</u>	<u>2.5</u>	<u>2</u>
<u>Post Office</u>	<u>1.6</u>	<u>1.3</u>	<u>1</u>
<u>Post Office - Local</u>	<u>2.75</u>	<u>2</u>	<u>2</u>
<u>Printing Plant</u>	<u>1.6</u>	<u>1.3</u>	<u>1</u>
<u>Printing Shop</u>	<u>2.75</u>	<u>2</u>	<u>2</u>
<u>Public Transit Terminal</u>	<u>1.25 per 200 gfa of public waiting space</u>	<u>1 per 200 gfa of public waiting space</u>	<u>1 per 200 gfa of public waiting space</u>
<u>Public Works Yard/Garage</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Radio & TV Studio</u>	<u>2.5</u>	<u>2</u>	<u>2</u>
<u>Rail Equip. Storage & Repair</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Recording Studio</u>	<u>1.6</u>	<u>1.3</u>	<u>1</u>
<u>Recreational Facility - Indoor (per four (4) seats)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>
<u>Recreational Facility - Outdoor (per playing field)</u>	<u>18.75</u>	<u>15</u>	<u>10</u>
<u>Recreational Facility - Outdoor Commercial</u>	<u>Larger of 1.25 per 4 seats or 18.75 per playing field</u>	<u>Larger of 1 per 4 seats or 15 per playing field</u>	<u>Larger of 1 per 4 seats or 10 per playing field</u>

<u><i>Table 8.1.9-1 Maximum Off-Street Parking Requirements</i></u>			
	<u>Neighborhood Districts</u>	<u>Shared Use Districts</u>	<u>Multimodal Mixed-Use Districts</u>
<u>Recreational Vehicle Sales – New and Used</u>	<u>2.5</u>	<u>2</u>	<u>2</u>
<u>Recycling Center - Large above 2,000 gfa</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Recycling Center - Small 2,000 gfa or less</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Research Lab</u>	<u>3.1</u>	<u>2.5</u>	<u>2</u>
<u>Restaurant</u>	<u>5</u>	<u>4</u>	<u>3</u>
<u>Restaurant – Take-Out</u>	<u>5</u>	<u>4</u>	<u>3</u>
<u>Salon/Spa</u>	<u>5</u>	<u>4</u>	<u>4</u>
<u>School - Secondary (per Classroom)</u>	<u>8.75</u>	<u>7</u>	<u>5</u>
<u>School - Primary (per Classroom)</u>	<u>1.9</u>	<u>1.5</u>	<u>1.5</u>
<u>School – Preschool Large (per two (2) employees)</u>	<u>1.25 plus 1.25 drop-off per 5 children</u>	<u>1 plus 1 drop-off per 5 children</u>	<u>1 plus 1 drop-off per 5 children</u>
<u>School – Preschool Small (up to 20 children) (per two (2) employees)</u>	<u>1.25 plus 1.25 drop-off per 5 children</u>	<u>1 plus 1 drop-off per 5 children</u>	<u>1 plus 1 drop-off per 5 children</u>
<u>School - Trade/Professional</u>	<u>6.25</u>	<u>5</u>	<u>3</u>
<u>School, - Post-Secondary</u>	<u>2.75</u>	<u>2</u>	<u>2</u>
<u>Solid Waste Facility - Incinerator, Landfill, Transfer Station</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Tailor Shop</u>	<u>2.75</u>	<u>2</u>	<u>1</u>
<u>Vehicle Salvage</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Warehouse</u>	<u>0.6</u>	<u>0.5</u>	<u>0.35</u>
<u>Warehouse - Self Storage Facility</u>	<u>1.25 per resident manager, plus 1.25 per 100 leasable storage spaces</u>	<u>1 per resident manager, plus 1 per 100 leasable storage spaces</u>	<u>1 per resident manager, plus 1 per 100 leasable storage spaces</u>
<u>Warehouse - Retail</u>	<u>4.1</u>	<u>3.3</u>	<u>2.5</u>
<u>Wholesale Sales</u>	<u>1.6</u>	<u>1.3</u>	<u>1</u>

Table 8.1.9-1 Maximum Off-Street Parking Requirements

	<u>Neighborhood Districts</u>	<u>Shared Use Districts</u>	<u>Multimodal Mixed-Use Districts</u>
<u>Worship, Place of (per four (4) seats)</u>	<u>1.25</u>	<u>1</u>	<u>1</u>

(a) **Exemptions:** The following shall not be included in the maximum number of allowable spaces required by this section:

- 1. Public Parking:** Spaces provided and available for use by the public shall not be counted towards the maximum. Such spaces shall be available to the public at a minimum of nights and weekends, and be signed or marked accordingly;
- 2. Carpool, Vanpool, and Car-Share Parking:** Spaces dedicated for vehicles participating in a carpool, vanpool, or car-share program shall not be counted towards the maximum. Such spaces shall be reserved for such use, and be signed or marked accordingly; and,
- 3. Alternative Fueled Vehicle Parking.** Parking spaces dedicated for vehicles operating on primarily alternative fuels including but not limited to electric, natural gas, and hydrogen shall not be counted towards the maximum. Such spaces shall be reserved for such use, and be signed and/or the space painted with the words "Alternative Fueled Vehicles Only."
- 4. Waiver of Maximum Parking Limitations.** Parking in excess of the maximum parking limitation of this section, or a request for one parking space where none would otherwise be permitted, may be waived by the DRB pursuant to the provisions of Sec 8.1.15 with the following additional requirements:
 - A. The applicant requesting the waiver shall also provide:
 - (i) a peak demand parking study for two similar uses in the area; and,
 - (ii) a TDM Plan pursuant to the requirements of Sec. 8.1.16
 - B. The following additional review criteria shall be addressed regarding how:
 - (i) The need for additional parking cannot reasonably be met through provision of on-street parking or shared parking with adjacent or nearby uses;
 - (ii) The proposed development demonstrates that its design and intended uses will continue to support high levels of existing or planned transit and pedestrian activity; and,
 - (iii) The site plan indicates where additional parking can be redeveloped to a more intensive transit supportive use in the future.

Secs. 8.1.10-8.1.11 As written.

Sec. 8.1.12 Limitations, Location, Use of Facilities

(a) Off-Site parking facilities:

Except for single and two-family dwellings, required parking facilities may be located on another parcel of land. The off-site parking area shall be within the same zoning district as the use it serves or in a zoning district that allows parking lots or parking garages as Principal uses. Parking that serves any use located outside a residential zoning district shall not be located within a residential zoning district. Off-site parking facilities shall be as follows:

- 1. Neighborhood Parking District:** No more than 50% of the total ~~required~~ offstreet parking ~~from Table 8.1.8-1~~ shall be provided at a distance greater than 600 feet from the use it is intended to serve.

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2. **Shared Use Parking District:** Any off-site parking shall be provided within 1,000 feet of the use it is intended to serve unless such parking is provided as part of a Parking Management Plan pursuant to Sec. 8.1.15 approved by the DRB.

3. The distance from the off-site parking to the associated use shall be measured in walking distance along a sidewalk or other pedestrian path separated from street traffic from the nearest parking space to the principle pedestrian entrance to the building housing the use. Such off-site parking shall not reduce the required parking for any other use utilizing the property on which it is located unless such shared use is approved by the development review board per Sec. 8.1.15 (b). The right to use the off-site parking to meet the minimum parking requirements of Sec. 8.1.8 must be guaranteed for the duration of the use as evidenced by a deed, easement, lease, or similar written instrument as approved by the City Attorney and recorded in the Burlington land records.

(b) –(f) As written.

Secs. 8.1.13 – 8.1.14 As written.

Sec. 8.1.15 Waivers from Parking Requirements/ Parking Management Plans

(a) Parking Waivers

The total number of parking spaces ~~required~~ regulated pursuant to this Article may be modified to the extent that the applicant can demonstrate that the proposed development can be adequately served by a more efficient approach that more effectively satisfies the intent of this Article and the goals of the municipal development plan to reduce dependence on the single-passenger automobile.

~~Any waiver granted for a residential use shall not exceed fifty percent (50%) of the required number of parking spaces. Any waiver granted for a non-residential use may be as much as ninety percent (90%).~~ Waivers shall only be granted by the DRB, or by the administrative officer pursuant to the provisions of Sec. 3.2.7 (a)7.

In order to be considered for a waiver, the applicant shall submit a Parking Management Plan that specifies why the parking requirements of ~~Sec. 8.1.8~~ or Sec. 8.1.9 are not applicable or appropriate for the proposed development, and proposes an alternative that more effectively meets the intent of this Article. A Parking Management Plan shall include, but not be limited to:

- (1) A calculation of the parking spaces required pursuant to Table 8.1.89-1, and Sec. 8.1.9 regarding parking maximums where applicable.
- (2) A narrative that outlines how the proposed parking management plan addresses the specific needs of the proposed development, and more effectively satisfies the intent of this Article and the goals of the Municipal Development Plan.
- (3) An analysis of the anticipated parking demand for the proposed development. Such an analysis shall include, but is not limited to:
 - i. Information specifying the proposed number of employees, customers, visitors, clients, shifts, and deliveries;
 - ii. Anticipated parking demand by time of day and/or demand by use;
 - iii. Anticipated parking utilizing shared spaces or dual use based on a shared parking analysis utilizing current industry publications;

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- iv. Availability and frequency of public transit service within a distance of 800- feet.
- v. A reduction in vehicle ownership in connection with housing occupancy, ownership, or type; and,
- vi. Any other information established by the administrative officer as may be necessary to understand the current and projected parking demand.

(4) Such a plan shall identify strategies that the applicant will use to reduce or manage the demand for parking into the future which may include but are not limited to:

- i. A telecommuting program;
- ii. Participation in a Transportation Management Association including methods to increase the use of mass transit, car pool, van pool, or non-auto modes of travel;
- iii. Implementation of a car-share program;
- iv. Development or use of a system using offsite parking and/or shuttles; and,
- v. Implementation of public transit subscriptions for employees.

(5) An analysis and narrative pursuant to Sec. 8.1.9 regarding waivers of parking maximums where applicable.

Prior to any approval by the DRB pursuant to this section, the means by which the parking management plan will be guaranteed and enforceable over the long term, such as a contract, easement, or other means, and whether the city should be a party to the management contract or easement, shall be made acceptable to the city attorney.

(b) Shared Parking for Off-Site Use

Onsite parking spaces may be made available for use by off-site users subject to review and approval of a Parking Management Plan by the DRB.

A Parking Management Plan for Shared Parking for Off-Site Use must include the following:

1. A calculation of the ~~parking spaces required pursuant to Table 8.1.8-1 and a calculation of those~~ parking spaces to be shared for off-site parking use.
2. Information specifying the actual onsite demand for required parking by day, time of day, and by use and also information specifying when and how much parking would be made available to off-site users.
3. A narrative that outlines how the proposed parking management plan will allow for shared use of required parking spaces with off-site users; ~~how it will enable continued availability of required parking spaces pursuant to Table 8.1.8-1 while also affording off-site parking use of those spaces.~~

The Parking Management Plan must demonstrate to the satisfaction of the DRB that making spaces available to off-site users does not negatively affect their ability for onsite users to park due to either:

1. There being an excess of onsite spaces beyond that necessary to satisfy the requirements of Sec. 8.1.98; and/or,
2. The spaces are to be made available during off-peak hours of the onsite and/or required users.

Parking spaces being made available to off-site users may be made available:

- Either with or without a fee;
- For transient use by the general public; and/or,

- By lease, provided the term of any lease does not exceed one (1) year.

Prior to any approval by the DRB pursuant to this section, the means by which the parking management plan will be guaranteed and enforceable over the long term, such as a contract, easement, or other means, and whether the city should be a party to the management contract or easement, shall be made acceptable to the city attorney.

Sec. 8.1.16 Transportation Demand Management

- (a) **Purpose:** This section requires the implementation of a Transportation Demand Management (TDM) Program for certain projects for the purpose of advancing the goals of the City's land use and transportation plans, and promoting public health, safety, welfare, and protection of the environment by:

- Reducing parking demand;
- Reducing car ownership;
- Reducing vehicle miles traveled (VMT) and congestion; and,
- Increasing transit use and non-motorized travel;

(b) **Applicability:**

- (1) Multimodal Mixed Use Parking District: A Transportation Demand Management Program shall be required for all projects located in the Multimodal Mixed Use Parking District (see Sec. 8.1.3(c)), and involving any one or more of the following:

Dwelling Units	Creation of ten (10) or more dwelling units
Non-residential or Mixed Use Development	A building footprint of eight thousand (8,000) s.f. or more; or, the creation of fifteen thousand (15,000) s.f. or more of gross floor area.

- (2) Shared Use District: A Transportation Demand Management Program shall be required for all projects located in the Shared Use Parking District (see Sec. 8.1.3(b)), and involving any one or more of the following:

<u>Dwelling Units</u>	<u>Creation of five (5) or more dwelling units</u>
<u>Non-residential or Mixed Use Development</u>	<u>A building footprint of eight thousand (8,000) s.f. or more; or,</u> <u>the creation of fifteen thousand (15,000) s.f. or more of gross floor area.</u>

- (3) Neighborhood District: A Transportation Demand Management Program shall be required for all projects located in the Multimodal Mixed Use Parking District (see Sec. 8.1.3(a)), and involving any one or more of the following:

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<u>Dwelling Units</u>	<u>Creation of five (5) or more dwelling units</u>
<u>Non-residential or Mixed Use Development</u>	<u>A building footprint of eight thousand (8,000) s.f. or more; or,</u> <u>the creation of fifteen thousand (15,000) s.f. or more of gross floor area.</u>

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(c) **Transportation Demand Management (TDM) Program:** A TDM Program shall include each of the following elements at a minimum:

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a. Outreach and Education:

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- i. Designation of a Transportation Coordinator who directly, or indirectly through membership in a Transportation Management Association, shall be responsible for each of the following:

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1. Prepare and present informational and educational materials regarding available TDM strategies to all tenants and employees;

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2. Organize and host an annual meeting for all tenants and employees to present and discuss available TDM strategies, and opportunities for increased use and participation; 3. Preparation and dissemination of an annual travel survey of all tenants and employees; and,

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4. Record-keeping and annual reporting to City of all TDM activities offered and rates of participation (including parking utilization if applicable).

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- b. **TDM Strategies:** In addition to compliance with the on-site Bicycle Parking requirements found in Article 8, Part 2, the following TDM strategies shall also be included at a minimum for a period of 10 years from receipt of a Certificate of Occupancy as follows:

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- i. GMT Transit passes shall be provided to all tenants and employees for free for the first year of occupancy or employment, and at a minimum discount of 50% for every year thereafter; and,

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- ii. A car share membership shall be offered to all tenants and employees for free for the first two years of occupancy or employment, and at a minimum discount of 50% for every year thereafter; or,

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- iii. In lieu of i and ii above, maintain an ongoing and active membership in a Transportation Management Association (TMA) that offers equivalent TDM strategies or better.

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- c. **Parking Management:** Where on-site or off-site parking is also made available:

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- i. Conduct parking utilization studies at least annually for a period of 10 years from receipt of a Certificate of Occupancy;

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- ii. With the exception of permanently affordable housing units, the cost of parking shall be un-bundled from all residential and nonresidential leases and deeds and made available at a market rate;

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- iii. Where parking spaces are made available to off-site users, parking spaces may be made available by a renewable lease, provided the term of any lease does not exceed one (1) year; and,

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- iv. Priority parking spaces - located in closest proximity to a primary building entrance and/or public street frontage - shall be made available for each of the following:

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1. Handicapped spaces;

2. Bicycles, scooters, and motorcycles spaces;

3. Car-share: where 1 space must be offered for every 20 residential units, not to exceed a total of 5 spaces, subject to an agreement with a car-share provider; and,

4. Carpool and/or Vanpool vehicles: where more than 20 spaces are available for non-residential uses. In such cases, 5 spaces or 5% of the parking spaces on site, whichever is less, must be reserved for carpool/vanpool use before 9:00 AM on weekdays.

d. **TDM Agreement:** Each TDM Plan shall include a signed commitment to and acknowledgement of each of the following on a form provided by the Administrative Officer:

i. Commitment to ongoing implementation of the TDM requirements as set forth above; ii. Acknowledgement that the project has no claim to the ongoing availability of nearby on-street public parking, and that, as is the case with other on-street public parking, the City retains the right to charge for or remove such on-street parking at any time;

iii. Acknowledgement that failure to maintain transportation demand management as required above is a violation of this ordinance, and understanding that, pursuant to Sec. 2.7.8 of this ordinance, no zoning permit or certificate of occupancy may be granted until any such violation has been remedied; and,

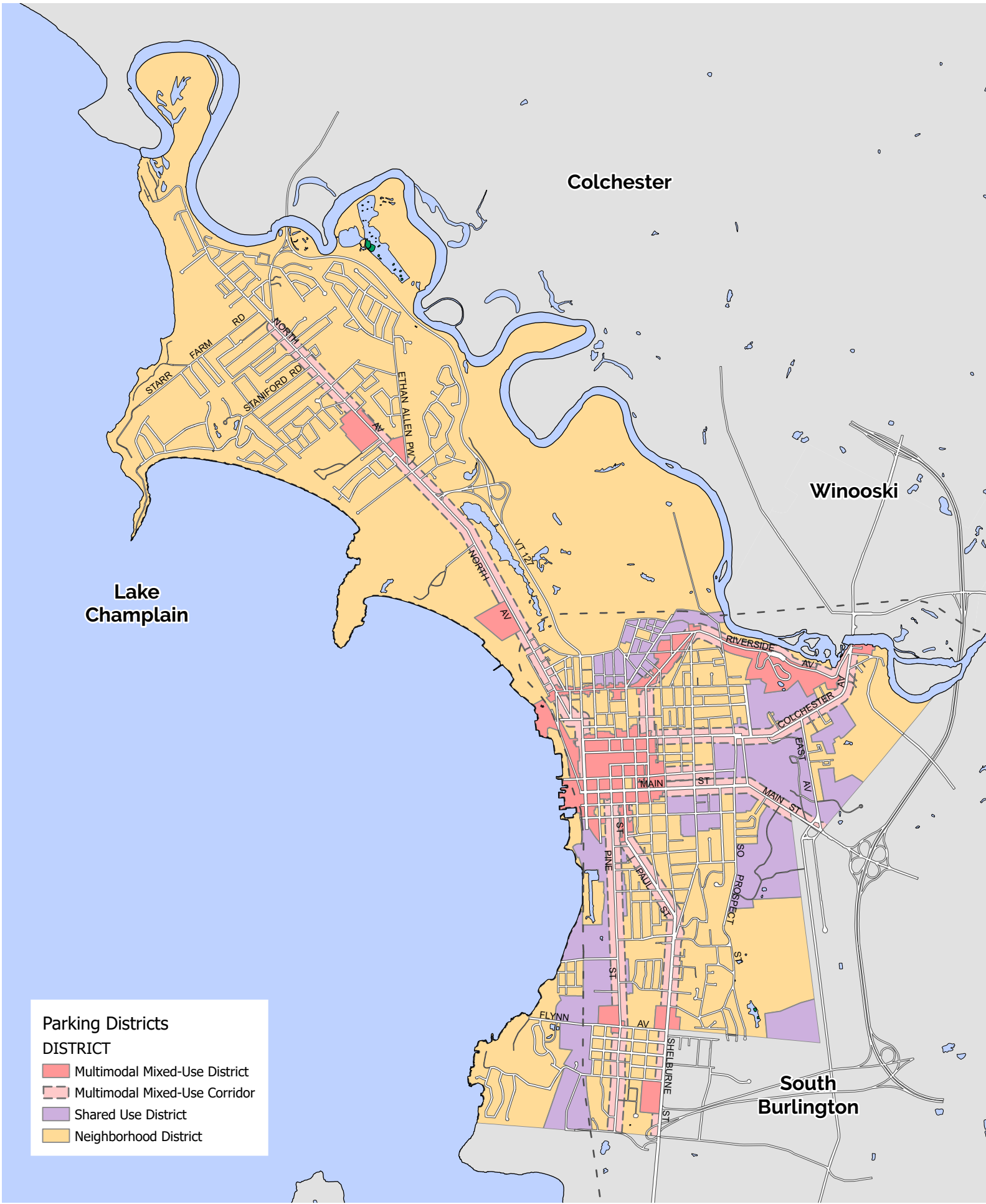
iv. Commitment to notify any subsequent owners and tenants in writing of their obligations under this section as part of any purchase and sale and/or lease agreements.

Review and Enforcement: The Administrative Officer shall be responsible for determining compliance with the TDM Program requirements as set forth above, and ongoing implementation shall be included as a condition of any discretionary or administrative permit required for development subject to the conditions of this Section.

Failure to maintain a TDM Program as required above shall be a violation of this ordinance, and pursuant to Sec. 2.7.8 of this ordinance no zoning permit or certificate of occupancy may be granted without a TDM Program in effect.

Guidelines regarding compliance with these TDM requirements shall be developed and provided to applicants by the Administrative Officer.

*JH/Ordinance 2021/Comprehensive Development Ordinance, Minimum and Maximum Parking Requirements and Transportation Demand Management
9/9/2021*



**CITY OF
BURLINGTON**



Parking Districts Map

Burlington Comprehensive Planning Commission Agenda
 Districts effective Jan. 30, 2008 with amendments effective 10-21-2020 (ZA-20-04)
 Page 35 of 129

PLANNING COMMISSION

January - December 2022

Regularly Scheduled Meetings

Date	Day	Time	Location
January 11, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
January 25, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
February 8, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
February 23, 2022	Wednesday	6:30 PM	Bushor Room/Hybrid
March 8, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
March 22, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
April 12, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
April 26, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
May 10, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
May 24, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
June 14, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
June 28, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
July 12, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
July 26, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
August 8, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
August 23, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
September 13, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
September 27, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
October 11, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
October 25, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
November 8, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
November 22, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid
December 13, 2022	Tuesday	6:30 PM	Bushor Room/Hybrid

All meetings of the Planning Commission will take place in the Bushor Conference Room, Room 102, City Hall, 149 Church Street. These meetings are anticipated to continue to have a Virtual Option via Zoom in 2022.

EXECUTIVE COMMITTEE

Meetings take place quarterly in advance of a Regular Commission meeting.

Date	Day	Time	Location
January 25, 2022	Tuesday	5:30 PM	Bushor Room/Hybrid
April 26, 2022	Tuesday	5:30 PM	Bushor Room/Hybrid
July 26, 2022	Tuesday	5:30 PM	Bushor Room/Hybrid
October 25, 2022	Tuesday	5:30 PM	Bushor Room/Hybrid

LONG RANGE PLANNING COMMITTEE

Meetings will be scheduled as needed based on project schedules and milestones.

ORDINANCE COMMITTEE

Meetings will be scheduled as needed based on items referred by Executive Committee.

Burlington Planning Commission

149 Church Street
Burlington, VT 05401
Telephone: (802) 865-7188
(802) 865-7195 (FAX)
(802) 865-7144 (TTY)

www.burlingtonvt.gov/pz

Andy Montroll, Chair
Bruce Baker, Vice-Chair
Yves Bradley
Alexander Friend
Michael Gaughan
Emily Lee
Brynne Martin

Burlington Planning Commission

Tuesday, November 9, 2021, 6:30 P.M.

Remote Meeting via Zoom, with City Hall In-Person Option

Draft Minutes

Members Present	A Montroll, Y Bradley, A Friend, M Gaughan, E Lee
Staff Present	M Tuttle, S Gustin, K Sturtevant
Public Attendance	R Davis, Z Richards, S Whitman, D Cahill

I. Agenda

Call to Order	Time: 6:34pm
Agenda	Move Chair's report after Public Forum; add new item before Commissioner items to Authorize a Grant Application.

II. Public Forum

Name(s)	Comment
R Davis	Have explored redevelopment of 453 Pine St; without state brownfield grant funds it will not be successful. Respect the planning and zoning amendment process, but if residential uses are not approved within 6 mo., site is very unlikely to get developed. Even developing a corrective action plan depends on surety that housing will be allowed.

III. Chair's Report

A Montroll	The Chair, fellow Commissioners, and staff in attendance thanked David White for his 26 years of service to the City, including the last 14 years as the Director.
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IV. Director's Report

M Tuttle	Council confirmed appointment as Director on Nov 8, and Nov 9 is first day as Director. Updated the Executive Committee before the meeting on priorities for next 6 months as searching for Principal Planner.
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V. Public Hearing: Proposed ZA-21-01 Historic Preservation Bonus

Action: Approve Municipal Bylaw Amendment Report & forward to Council with recommendation		
Motion by: Y Bradley	Second by: M Gaughan	Vote: Approved Unanimously
Type: Discussion	Presented by: S Gustin	
S Gustin presented an overview of a proposed amendment, which accompanies an amendment previously considered by the Commission. This addresses residential density bonus standards, and makes these standards applicable to all historic buildings regardless of district. The Chair opened and closed the Public Hearing at 7:10pm with no comments from the public or Commissioners.		

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.

VI. Public Hearing: Proposed ZA-21-02 Permitting Simplifications

Action: Approve Municipal Bylaw Amendment Report & forward to Council with recommendation		
Motion by: E Lee	Second by: A Friend	Vote: Approved Unanimously
Type: Discussion	Presented by: S Gustin	
S Gustin presented an overview of a proposed amendment, which eliminates the need for a zoning permit when no other applicable standards apply, allows basic permits for single-family uses on small lots within non-design review districts, and allows administrative permits for projects in the flood zone that wouldn't otherwise require review by the DRB. The Chair opened and closed the Public Hearing at 7:17m with no public comment. A Commissioner expressed support for this amendment as "common sense."		

VII. Open Space Protection Plan Addendum

Action: Recommend Council approval of the plan with staff comments incorporated.		
Motion by: A Friend	Second by: E Lee	Vote: Approved Unanimously
Type: Discussion	Presented by: S Gustin, S Whitman	
S Whitman and Conservation Board representatives presented an update on its work to prepare an addendum to the Open Space Protection Plan to address Nature Based Climate Solutions. It was noted that D White provided comments that will be incorporated in the final draft. The report can be found at: https://www.dropbox.com/s/yo53cgt8gwwh6pm/102921%20Burlington%20Open%20Space%20Addendum.pdf?dl=0		
Commission discussion:		
A Commissioner asked if this plan addresses compaction of parking areas on residential lots, and opportunities to improve stormwater infiltration. S Gustin noted that the plan refers to the specific goals of the Integrated Water Planning effort by DPW, which does recommend this.		

VIII. Municipal Bylaw Amendment Grant Application

Action: Approve resolution to authorize department to apply for FY22 bylaw modernization grant		
Motion by: M Gaughan	Second by: E Lee	Vote: Approved Unanimously
Type: Discussion	Presented by: M Tuttle	
M Tuttle updated the Commission on an opportunity to apply for a grant through the VT Dept. of Housing & Community Development. The grant supports projects to update zoning bylaws to support housing in walkable neighborhoods near designated centers. The application will include a review of “missing middle” opportunities in residential areas as was on the department’s FY22 Work Plan.		
Commission discussion:		
A Commissioner noted excitement about this project, and in particular the potential to re-legalize existing patterns of development in neighborhoods near downtown.		

IX. Commissioner Items

- Next meeting is Nov. 23, likely be a Joint Meeting with the Council Ordinance Committee - Dec. 14 is final meeting for the year for the Commission
--

X. Minutes and Communications

Action: Approve the minutes and accept the communications		
Motion by: Y Bradley	Second by: E Lee	Approved Unanimously
Minutes Approved: October 26, 2021		
Communications Filed: Documents included in agenda packet and additional materials posted at: https://www.burlingtonvt.gov/CityPlan/PC/Agendas		

XI. Adjourn

Adjournment		Time: 7:53pm	
Motion: A Friend	Second: E Lee	Vote: Approved Unanimously	

DRAFT



It'll take policy changes.

Businesses, hospitals, governments and nonprofits are connecting the dots between housing access and their own goals.

**STATE OF VERMONT
AGENCY OF NATURAL RESOURCES
OFFICE OF PLANNING**

RE: University of Vermont and State	)	DISTRICT ENVIRONMENTAL
Agricultural College	)	COMMISSION #4
	)	
	)	APPLICATION #4C0065-3
	)	
	)	November 17, 2021

SUPPLEMENTAL COMMENTS

The Agency of Natural Resources (“Agency”), State of Vermont, by and through its staff, Kevin Anderson, offers the following supplemental comments in the above-captioned matter.

Criterion 1(E): Streams

On October 25, 2021, the Agency requested that the Applicant submit revised plans and additional information regarding avoidance and mitigation of riparian zone impacts. The Agency also requested that the District Commission not issue a land use permit for the project until the Applicant supplements its application with this information and the Agency files supplemental comments under Criterion 1(E).

On November 16, 2021, the Applicant filed site plans SP-F1 (Exhibit 013b) and SP-F2 (Exhibit 014b), last revised October 27, 2021. The revised site plans identify the riparian buffer as measured 50 feet landward from the stream-adjacent Class II wetland, depict an eastward adjustment of the gravel wetland, and show portions of the riparian buffer that would be reseeded and left undisturbed and naturally vegetated after construction. The revised site plans also show boulders marking a portion of the boundary of the riparian buffer. The proposed changes reduce riparian zone impacts by approximately 155 square feet. In an accompanying letter (Exhibit 023), the Applicant explains why it would not be feasible to eliminate or further reduce riparian zone disturbance beyond what is shown in the revised site plans.

The revised site plans and letter address the Agency’s request of the Applicant on October 25, 2021. Condition 20 of the proposed land use permit should be revised to refer to the revised site plans. The Agency respectfully requests that condition 20 be modified as follows:

The Permittee shall maintain an undisturbed, naturally vegetated riparian zone ~~on the Project Tract~~ along the unnamed tributary to the Potash Brook as depicted in Exhibits # 013b and 014b. ~~The riparian zone shall be measured inland, perpendicular to, and horizontally 50 feet from the top of bank and extend to the water’s edge at base flow conditions as depicted in Exhibit # —.~~ The term “undisturbed” means no activities that may cause or contribute to ground or

vegetation disturbance, or soil compaction, including but not limited to construction; earth-moving activities; storage of materials; tree trimming or canopy removal; tree, shrub or groundcover removal; plowing or disposal of snow; grazing, brush-hogging and mowing.

The Agency solicited and received consent from the Applicant to the above condition.

Criterion 1(G): Wetlands

At the Agency's request, the Applicant submitted a new registration under Wetlands General Permit 3-9026. The new registration reflects the aforementioned site plan revisions and lower amount of wetland buffer zone disturbance.

Respectfully submitted,
State of Vermont
Agency of Natural Resources

By: /s/ Kevin Anderson
Kevin Anderson
Regulatory Policy Analyst
Agency of Natural Resources
Office of Planning
(802) 798-2087

E-Notification CERTIFICATE OF SERVICE FILE #4C0065-3

I hereby certify that I, Kevin Anderson, Regulatory Policy Analyst for the Agency of Natural Resources Office of Planning, sent a copy of the foregoing **Supplemental Comments**, dated November 17, 2021, regarding File #4C0065-3 by U.S. mail, postage prepaid, to the individuals without email addresses and by electronic mail to those with email addresses as indicated:

District #4 Environmental Commission
111 West Street
Essex Junction, VT 05452
rachel.lomonaco@vermont.gov
nrb.act250essex@vermont.gov

University of Vermont c/o Lani Ravin
16 Colchester Avenue
Burlington, VT 05405
Lani.ravin@uvm.edu
lisa.kingsbury@uvm.edu

Donna Kinville, City Clerk
Chair, Selectboard/Chair, Planning Comm.
City of South Burlington
180 Market Street
South Burlington, VT 05403
dkinville@sburl.com

Katherine Schad, City Clerk
Chair, Selectboard/Chair, Planning Comm.
City of Burlington
149 Church Street Burlington, VT 05401
burlingtontownclerk@burlingtonvt.gov
lolberg@burlingtonvt.gov

Chittenden Co. Regional Planning Comm.
110 West Canal Street, Suite 202
Winooski, VT 05404 p
permitting@ccrpcvt.org

Dept. of Public Service
112 State Street, Drawer 20
Montpelier, VT 05620-2601
barry.murphy@vermont.gov
PSD.VTDPS@vermont.gov

VTrans Policy, Planning & Research Bureau
219 N. Main Street Barre, VT 05641
AOT.Act250@vermont.gov

Agency of Agriculture, Food & Markets
116 State Street, Drawer 20
Montpelier, VT 05620-2901
AGR.Act250@vermont.gov

Division for Historic Preservation
National Life Building, Drawer 20
Montpelier, VT 05620
scott.dillon@vermont.gov
james.duggan@vermont.gov
ACCD.ProjectReview@vermont.gov

/s/ Kevin Anderson
Kevin Anderson, Regulatory Policy Analyst
Agency of Natural Resources
Office of Planning



LAND USE PERMIT AMENDMENT

State of Vermont
Natural Resources Board
District 4 Environmental Commission
111 West Street
Essex Junction, VT 05452
<https://nrb.vermont.gov/>

[phone] 802-879-5614

CASE NO: 4C0065-3

University of Vermont and State
Agricultural College
16 Colchester Avenue
Burlington, VT 05405

LAWS/REGULATIONS INVOLVED

10 V.S.A. §§ 6001 - 6111 (Act 250)

The District 4 Environmental Commission hereby issues Land Use Permit Amendment #4C0065-3, pursuant to the authority vested in it by 10 V.S.A. §§ 6001-6111. This permit amendment applies to the lands identified in Book 91, Pages 39-41, of the land records of the City of South Burlington, Vermont, as the subject of a deed to University of Vermont and State Agricultural College.

This permit specifically authorizes the construction of a gravel wetland and associated stormwater infrastructure at the UVM Forestry Research Complex. The project is located at 705 Spear Street in South Burlington, Vermont.

Jurisdiction attaches because the Project constitutes a material change to a permitted development or subdivision, and thus requires a permit amendment pursuant to Act 250 Rule 34.

1. The Permittee, and its assigns and successors in interest, is obligated by this permit to complete, operate and maintain the project as approved by the District 4 Environmental Commission (the "Commission") in accordance with the following conditions.
2. The project shall be completed, operated and maintained in accordance with: (a) the conditions of this permit, and (b) the permit application, plans, and exhibits on file with the Commission and other material representations. In the event of any conflict, the terms and conditions of this permit shall supersede the approved plans and exhibits.



The approved plans are:

Sheet PAS-1 - "Forest Services Agricultural Soils Site Plan," dated 9/13/21 (Exhibit #010);

Sheet SP-F1 - "Forest Services Overall Site Plan," dated 9/27/21, last revised 10/27/21 (Exhibit #013b);

Sheet SP-F2 - "Forest Services Stormwater Site Plan," dated 9/27/21, last revised 10/27/21 (Exhibit #014b);

Sheet SP-F3 - "Forest Services Overall Stormwater Plan," dated 9/27/21 (Exhibit #015);

Sheet SP-F4 - "Forest Services Existing Conditions Plan," dated 9/27/21 (Exhibit #016);

Sheet SP-F5 - "Erosion Prevention & Sediment Control Plan," dated 9/27/21 (Exhibit #017);

Sheet CD-1 - "Civil Details," dated 9/27/21 (Exhibit #018); and

Sheet CD-2 - "Civil Details," dated 9/27/21 (Exhibit #019).

3. All conditions of Land Use Permit #4C0065 and amendments are in full force and effect except as further amended herein.
4. The Permittee shall comply with all of the conditions of the following Agency of Natural Resources Permits:
 - a. Authorization of Notice of Intent #7212-9020.5 under Construction General Permit 3-9020 issued on November 5, 2020 by the ANR Watershed Management Division; and
 - b. Wetland Permit #2020-472 issued in accordance with Wetland General Permit #3-9026 on July 28, 2020 by the ANR Watershed Management Division.
5. Any nonmaterial changes to the permits listed in the preceding condition shall be automatically incorporated herein upon issuance by the Agency of Natural Resources.
6. Representatives of the State of Vermont shall have access to the property covered by this permit, at reasonable times, for the purpose of ascertaining compliance with Vermont environmental and health statutes and regulations and with this permit.
7. A copy of this permit and plans shall be on the site at all times throughout the construction process.
8. No change shall be made to the design, operation or use of this project without a permit amendment issued by the Commission or a jurisdictional opinion from the District Coordinator that a permit is not required.
9. No further subdivision, alteration, and/or development on the tract of land approved herein shall be permitted without a permit amendment issued by the Commission or a jurisdictional opinion from the District Coordinator that a permit is not required.

10. Pursuant to 10 V.S.A. § 8005(c), the Commission or the Natural Resources Board may at any time require that the permit holder file an affidavit certifying that the project is in compliance with the terms of this permit.
11. The conditions of this permit and the land uses permitted herein shall run with the land and are binding upon and enforceable against the Permittee and their successors and assigns.
12. Construction hours shall be limited to Monday through Friday from 7:00AM to 6:00PM, and Saturdays from 8:00AM to 4:30PM.
13. The Permittee shall apply and maintain water and/or other agents approved by the Watershed Management Division on all roadways or disturbed areas within the project during construction and until pavement and/or vegetation is fully established to control dust.
14. Immediately upon initial clearing, grading or excavation a stabilized construction entrance must be installed and maintained as shown on Exhibits #014b, 017 and 019. At a minimum, this entrance must be constructed and maintained in accordance with the specifications as described in the Vermont Department of Environmental Conservation's *Low Risk Site Handbook for Erosion Prevention and Sediment Control* (February 2020). No further clearing or construction beyond the stabilized construction entrance is complete.
15. The Permittee shall comply with Exhibits #005, 014b, 017 and 019 for erosion prevention and sediment control. The Permittee shall prevent the transport of any sediment beyond that area necessary for construction approved herein. All erosion prevention and sediment control devices shall be periodically cleaned, replaced, and maintained until vegetation is permanently established on all slopes and disturbed areas.
16. All mulch, siltation dams, water bars and other temporary devices shall be installed immediately upon grading and shall be maintained until all roads are permanently surfaced and all permanent vegetation is established on all slopes and disturbed areas. Topsoil stockpiles shall have the exposed earth completely mulched and have siltation checks around the base.
17. All areas of disturbance must have temporary or permanent stabilization within 14 days of the initial disturbance. After this time, any disturbance in the area must be stabilized at the end of each workday. The following exceptions apply: i) Stabilization is not required if work is to continue in the area within the next 24 hours and there is no precipitation forecast for the next 24 hours. ii) Stabilization is not required if the work is occurring in a self-contained excavation (i.e., no outlet) with a depth of 2 feet or greater (e.g., house foundation excavation, utility trenches).
18. All disturbed areas of the site shall be stabilized, seeded, and mulched immediately upon completion of final grading. All disturbed areas not involved in winter construction shall

be mulched and seeded before October 15. Between the periods of October 15 to April 15, all earth disturbing work shall conform with the “Requirements for Winter Construction” standards and specifications of the Vermont Department of Environmental Conservation’s *Low Risk Site Handbook for Erosion Prevention and Sediment Control* (February 2020).

19. In addition to conformance with all erosion prevention and sediment control conditions, the Permittee shall not cause, permit or allow the discharge of waste material into any surface waters. Compliance with the requirements of this condition does not absolve the Permittee from compliance with 10 V.S.A. (§§ 1250-1284) Chapter 47, Vermont's Water Pollution Control Law.
20. The Permittee shall maintain an undisturbed, naturally vegetated riparian zone along the unnamed tributary to the Potash Brook as depicted in Exhibit #014b. The term “undisturbed” means no activities that may cause or contribute to ground or vegetation disturbance, or soil compaction, including but not limited to construction; earth-moving activities; storage of materials; tree trimming or canopy removal; tree, shrub or groundcover removal; plowing or disposal of snow; grazing, brush-hogging and mowing.
21. The Permittee shall maintain an undisturbed, naturally vegetated Class II wetland and 50-foot wetland buffer zone as depicted in Exhibit #014b. The term “undisturbed” means that there shall be no activities that may cause or contribute to ground or vegetation disturbance or soil compaction, including but not limited to construction, earth-moving activities, storage of materials, tree trimming or canopy removal, tree, shrub or groundcover removal; plowing or disposal of snow, grazing or mowing.
22. Prior to any site work, the Permittee shall install and maintain temporary fencing along the tree line to be retained as depicted on Exhibits #014b and 019.
23. Prior to operation of the project, the riparian buffer zone shall be permanently marked with prominent large stones, as depicted on Exhibit #014b. Upon prior written approval by the Commission, an alternative method of demarcation, such as fencing, posts, or tree blazing may be allowed.
24. Any extracted stumps shall be disposed of on-site above the seasonal high water table and not in any wetland, or at a state-certified stump and inert waste disposal facility, so as to prevent groundwater pollution.
25. The project impacts 0.25 acres of primary agricultural soils for which 0.50 acres of mitigation are calculated (de minimis). The Permittee shall mitigate the 0.25 acres primary agricultural soils impact if/when the cumulative primary agricultural soils impacts (from this pending Act 250 Permit application and subsequent amendment impacts on this parcel or involved lands) result in a mitigation area of 2.0 or more acres, as further outlined in Exhibit #021.

26. No exterior signage or lighting is authorized by this permit. The Permittee shall not erect additional exterior signage or lighting without prior written approval from the District Coordinator or the Commission, whichever is appropriate under the Act 250 Rules. Signage includes banners, flags, and other advertising displays, excepting temporary real estate marketing signs and temporary Grand Opening signs.
27. Should the City at any time agree to accept any private utilities being then operated by the Permittee and/or its assigns and successors in interest, the Permittee and/or its assigns and successors in interest shall be responsible to improve the same to City specifications and shall deed all lands involved with said improvements to the City. Such improvements may require a land use permit amendment.
28. The Permittee shall provide each prospective purchaser of any interest in this Project a copy of the Land Use Permit Amendment before any written contract of sale is entered into.
29. The Permittee shall reference the requirements and conditions imposed by Land Use Permit #4C0065-3 in all deeds of conveyance and leases.
30. Pursuant to 10 V.S.A. § 6090(b)(1), this permit amendment is hereby issued for an indefinite term, as long as there is compliance with the conditions herein. Notwithstanding any other provision herein, this permit shall expire three years from the date of issuance if the Permittee has not commenced construction and made substantial progress toward completion within the three-year period in accordance with 10 V.S.A. § 6091(b).
31. All site work and construction shall be completed in accordance with the approved plans by **October 1, 2024**, unless an extension of this date is approved in writing by the Commission. Such requests to extend must be filed prior to the deadline and approval may be granted without a public hearing.
32. The Permittee shall file a Certificate of Actual Construction Costs, on forms available from the Natural Resources Board, pursuant to 10 V.S.A. § 6083a(g) within one month after construction has been substantially completed. If actual construction costs exceed the original estimate, a supplemental fee based on actual construction costs must be paid at the time of certification in accordance with the fee schedule in effect at the time of application. Upon request, the Permittee shall provide all documents or other information necessary to substantiate the certification. Pursuant to existing law, failure to file the certification or pay any supplemental fee due constitutes grounds for permit revocation. The certificate of actual construction costs and any supplemental fee (by check payable to the "State of Vermont") shall be mailed to: Natural Resources Board, 10 Baldwin Street, Montpelier, VT 05633-3201; Attention: Certification.
33. Failure to comply with any condition herein may be grounds for permit revocation pursuant to 10 V.S.A. sec. 6027(g).

Dated this 7th day of December, 2021.

By /s/Parker Riehle, Vice Chair
Parker Riehle, Vice Chair
District 4 Commission

Members participating in this decision:

Monique Gilbert
Kate Purcell

Any party may file a motion to alter with the District Commission within 15 days from the date of this decision, pursuant to Act 250 Rule 31(A).

Any appeal of this decision must be filed with the Superior Court, Environmental Division within 30 days of the date the decision was issued, pursuant to 10 V.S.A. Chapter 220. The Notice of Appeal must comply with the Vermont Rules for Environmental Court Proceedings. The appellant must file with the Notice of Appeal the relevant entry fee required by 32 V.S.A. § 1431.

The appellant must also serve a copy of the Notice of Appeal on the Natural Resources Board, 10 Baldwin Street, Montpelier, VT 05633-3201, and on other parties in accordance with Rule 5(b)(4)(B) of the Vermont Rules for Environmental Court Proceedings.

Decisions on minor applications may be appealed only if a hearing was held by the district commission. Please note that there are certain limitations on the right to appeal, including appeals from Administrative Amendments and interlocutory appeals. See 10 V.S.A. § 8504(k), 3 V.S.A. § 815, and Vermont Rule of Appellate Procedure 5.

For additional information on filing appeals, see the Court's website at: <http://www.vermontjudiciary.org/GTC/environmental/default.aspx> or call (802) 951-1740. The Court's mailing address is: Vermont Superior Court, Environmental Division, 32 Cherry Street, 2nd Floor, Suite 303, Burlington, VT 05401.

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Exhibit List

Application #	4C0065-3 (12/3/21)
Applicant(s)	The University of Vermont & State Agricultural College
Landowner(s)	The University of Vermont & State Agricultural College
Project Town(s):	South Burlington, Vermont



Natural Resources
Board

No.	Date Received (Office Use Only)	Document Name/Description	Submitted By (Office Use Only)
000		000 Exhibit List	
001	9/29/21	001 Act 250 Application	Applicant
002	9/29/21	002 Schedule G	Applicant
003	9/29/21	003 Cover Letter	Applicant
004	9/29/21	004 Adjoiners Map	Applicant
005	9/29/21	005 Permit # 7212-9020.5	Applicant
006	9/29/21	006 Wetlands Non-Reporting General Permit 3-9026	Applicant
007	9/29/21	007 Wetland Registration 2020-472	Applicant
008	9/29/21	008 VDHP Comment No Affect	Applicant
009	9/29/21	009 ANR Atlas Natural Habitat Map	Applicant
010	9/29/21	010 Agricultural Soils Site Plan	Applicant
011	9/29/21	011 AAFM Intake Form	Applicant
012	9/29/21	012 Location Map	Applicant
013	9/29/21	013 SP-F1_9-27-2021 Overall Site Plan	Applicant
013a	10/12/21	013a SP-F1_10-07-2021 Overall Site Plan Revised	Applicant
	11/17/21	013b SP-F1_10-27-2021 Overall Site Plan Revised	Applicant
014	9/29/21	014 SP-F2_9-27-2021 Stormwater Site Plan	Applicant
014a	10/12/21	014a SP-F2_10-07-2021 Stormwater Site Plan Revised	Applicant
	11/17/21	014b SP-F2_10-27-2021 Stormwater Site Plan Revised	Applicant
015	9/29/21	015 SP-F3_9-27-2021 Overall Stormwater Plan	Applicant
016	9/29/21	016 SP-F4_9-27-2021 Existing Conditions Plan	Applicant

No.	Date Received (Office Use Only)	Document Name/Description	Submitted By (Office Use Only)
017	9/29/21	017 SP-F5_9-27-2021 EPSC Plan	Applicant
018	9/29/21	018 CD-1_9-27-2021	Applicant
019	9/29/21	019 CD-2_9-27-2021	Applicant
020	10/12/21	020 Cover Letter by Lani Ravin re Revised Plans 10-11-2021	Applicant
021	10/22/21	021 AAFM Review Letter (10/22/21)	AAFM
022	10/25/21	022 ANR Entry of Appearance Comments (10/25/21)	ANR
023	11/17/21	023 Riparian Buffer Impact Response Letter (10/27/21)	Applicant
024	11/17/21	024 ANR Supplemental Comments (11/17/21)	ANR
025	12/3/21	025 ZP-21-448_Spear St 705	Applicant
026	12/3/21	026 Notice of ZP-21-448	Applicant
027		027	
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CERTIFICATE OF SERVICE

I hereby certify on this 7th day of December, 2021, a copy of the foregoing ACT 250 LAND USE PERMIT #4C0065-3, was sent by U.S. mail, postage prepaid to the following individuals without email addresses and by email to the individuals with email addresses listed.

Note: any recipient may change its preferred method of receiving notices and other documents by contacting the District Office staff at the mailing address or email below. If you have elected to receive notices and other documents by email, it is your responsibility to notify our office of any email address changes. All email replies should be sent to NRB.Act250Essex@vermont.gov

University of Vermont
c/o Lani Ravin
16 Colchester Avenue
Burlington, VT 05405
Lani.ravin@uvm.edu
lisa.kingsbury@uvm.edu

Dated at Essex Junction, Vermont, this 7th day of December, 2021.

Donna Kinville, City Clerk
Chair, City Council/Chair, City Planning Commission
City of South Burlington
180 Market Street
South Burlington, VT 05403
dkinville@sburl.com

/s/Christine Commo
Natural Resources Board Technician
802-879-5614
christine.commo@vermont.gov

Y:\NRB\Essex\DISTRICTS\DIST4\PROJECTS\UVM\4C0065\4C0065-3\Published Documents\District Commission Documents\4C0065-3 coslup.docx

Katherine Schad, City Clerk
Chair, City Council/Chair, City Planning Commission
City of Burlington
149 Church Street
Burlington, VT 05401
burlingtontownclerk@burlingtonvt.gov
lolberg@burlingtonvt.gov

Chittenden County Regional Planning Commission
110 West Canal Street, Suite 202
Winooski, VT 05404
permitting@ccrpcvt.org

Agency of Natural Resources
1 National Life Drive, Davis 2
Montpelier, VT 05602-3901
ANR.Act250@vermont.gov

Dept. of Public Service
112 State Street, Drawer 20
Montpelier, VT 05620-2601
PSD.VTDPS@vermont.gov

VTrans Policy, Planning & Research Bureau
Barre City Place
219 N. Main Street
Barre, VT 05641
AOT.Act250@vermont.gov

Agency of Agriculture, Food & Markets
116 State Street, Drawer 20
Montpelier, VT 05620-2901
AGR.Act250@vermont.gov

Division for Historic Preservation
National Life Building, Drawer 20
Montpelier, VT 05620
ACCD.ProjectReview@vermont.gov

FOR YOUR INFORMATION

District #4 Environmental Commission
Parker Riehle, Vice Chair
Monique Gilbert/Kate Purcell
111 West Street
Essex Junction, VT 05452

E-Notification CERTIFICATE OF SERVICE Regarding Supplemental Information for LUP# 4C0065-3,
For UVM Constructed Wetland at 705 Spear Street, November 16, 2021

I hereby certify that I, Lani Ravin, Associate Planner at the University of Vermont & State Agricultural College, have submitted a copy of documents, dated November 16, 2021, for the University of Vermont, regarding LUP# 4C0065-3, regarding a proposed constructed wetland at 705 Spear Street, South Burlington, to Act 250, by electronic submission via GlobalScape. I have notified the following by electronic mail to those with email addresses as indicated:

District #4 Environmental Commission
111 West Street

Essex Junction, VT 05452

NRB.Act250Essex@vermont.gov

Rachel.Lomonaco@vermont.gov

University of Vermont & State Agricultural
College

c/o Lani Ravin, AICP, Associate Planner

Lisa Kingsbury, Associate Director

Planning, Design & Construction

16 Colchester Avenue

Burlington, VT 05405

Lani.ravin@uvm.edu; Lisa.mcnaney@uvm.edu;

Lisa.kingsbury@uvm.edu;

Katherine Schad, Burlington City Clerk
Chair, Selectboard/Chair, Planning Commission
City of Burlington

149 Church Street

Burlington VT 05401

burlingtontownclerk@burlingtonvt.gov;

lolberg@burlingtonvt.gov;

abovee@burlingtonvt.gov;

mtracy@burlingtonvt.gov;

amontroll@burlingtonvt.gov

Donna Kinville, City Clerk

Chair, Selectboard/Chair, Planning Commission

City of South Burlington

180 Market Street

South Burlington, VT 05403

dkinville@sburl.com

hriehle@sburl.com

jlouisos@sburl.com

Chittenden County Regional Planning
Commission

110 West Canal Street, Suite 202

Winooski VT 05404

Permitting@ccrpcvt.org

Agency of Natural Resources

1 National Life Drive, Davis 2

Montpelier, VT 05602-3901

Anr.act250@vermont.gov

Dept. of Public Service

112 State Street, Drawer 20

Montpelier, VT 05620-2601

barry.murphy@vermont.gov;

PSD.VTDPS@vermont.gov;

VTrans Policy, Planning & Research Bureau
Barre City Place

219 N. Main Street

Barre, VT 05641

AOT.Act250@vermont.gov;

Agency of Agriculture, Food & Markets

116 State Street, Drawer 20

Montpelier, VT 05620-2901

AGR.Act250@vermont.gov;

Division for Historic Preservation

National Life Building, Drawer 20

Montpelier, VT 05620

scott.dillon@vermont.gov;

james.duggan@vermont.gov;

ACCD.ProjectReview@vermont.gov;

For Your Information:

Natural Resources Conservation Service

68 Catamount Park, Ste. B

Middlebury, VT 05753

marybeth.whitten@vt.usda.gov

Winooski NRCD Office
617 Comstock Road, Suite 1
Berlin, VT 05602
info@winooskinrcd.org

Ethan Tapper, County Forester/FPR
John Gobeille/Toni Mikula, ANR/Dept. of
Fish & Wildlife
111 West Street
Essex Junction, VT 05452
ethan.tapper@vermont.gov
john.gobeille@vermont.gov;
toni.mikula@vermont.gov

Green Mountain Power Corporation
163 Acorn Lane
Colchester, VT 05446
kim.jones@greenmountainpower.com

Vermont Gas Systems
PO Box 467
Burlington, VT 05402
efficiency@vermontgas.com

Efficiency Vermont
128 Lakeside Ave., Suite 401
Burlington, VT 05401
pics@veic.org

Champlain Water District
403 Queen City Park Road
South Burlington, VT 05403
mike.barsotti@champlainwater.org

Champlain Cable Corporation
175 Hercules Drive
Colchester, VT 05446
jmayer@champcable.com

Dated at Burlington, Vermont, November 16,
2021

Lani Ravin, AICP

Lani Ravin, AICP, Associate Planner
Planning, Design & Construction
University of Vermont & State Agricultural
College

CITY OF SOUTH BURLINGTON
Z O N I N G P E R M I T A P P L I C A T I O N

PROPERTY Street Address: <u>705 Spear Street</u>	Application No: <u>21-448</u> [office use only]
Property Owner: <u>University of Vermont & State Agricultural College</u>	Parcel Size: _____
Property Owner Mailing Address: <u>16 Colchester Avenue, Burlington VT 05405</u>	
APPLICANT: <u>University of Vermont & State Agricultural College</u>	
Applicant Mailing Address: <u>16 Colchester Avenue, Burlington VT 05405</u>	
Applicant Email: <u>Lani.Ravin@uvm.edu</u>	Daytime phone: <u>(802) 656-3208</u>

1. PROPOSED project including building dimensions (describe): Construction of a gravel wetland, screening of dumpsters, and installation of 4 inverted U bike racks (8 bike parking spaces). The gravel wetland will impact small areas of wetland buffers and 60 s.f. of wetland for the new outfall pipe. This storm water retro fit is a result of collaboration between the City and UVM, to improve water quality in the Potash Brook watershed. The outfall pipe extends into the woods and will require clearing of a single mature tree and some woody brush.
2. RELATED Site Plan, Conditional Use, PUD, Subdivision, or Misc Approval SP-21-042
3. Present USE(S) of the property:
- ☐ Single family home on its own parcel
- ☒ Other (please state the USE per Land Development Regulations- retail, general office, multifamily residential, etc.):
Institutional-Agricultural South: Academic/Agricultural Research & Education
4. List all present structure(s) on property (describe including dimensions or square footage of each): Research building, headhouse, greenhouse and outbuildings. No changes proposed other than the constructed
5. Does the project include a proposed change of USE?
- ☒ No (the property will still be used for the same purpose)
- ☐ Yes (please state proposed changed or added USES per Land Development Regulations- retail, general office, multifamily residential, etc.): _____
6. ESTIMATED total cost of improvements (materials and labor): \$ 95,000
- Complete the following only if the project involves changes to the dimensions of your building or other site changes (ie, not interior renovations or roof / window / deck replacement)*
7. BUILDING footprint – i.e. size in sq. ft. of main floor of house and all attached and detached structures including enclosed breezeways, garages, and sheds (describe): Existing: _____ Proposed: _____
No changes proposed for any of the existing buildings.
8. TOTAL impervious surfaces on site (i.e. Building footprint PLUS size in s.f. of driveways, patios, decks)
- Existing: _____ Proposed: No changes proposed.
9. ATTACH SKETCH PLAN OR SITE PLAN

10. APPLICANT/OWNER CERTIFICATION

The undersigned property owner hereby consents to submission of this application and understands that if the application is approved, the Zoning Permit and any attached conditions will be binding on the property.

Lani Ravin, AICP
Property Owner Signature

Lani Ravin AICP, for UVM & SAC
PRINT NAME

11/29/2021
Date

The undersigned applicant hereby affirms that the information presented in this application is true, accurate and complete.

Lani Ravin, AICP
Applicant Signature

Lani Ravin AICP, for UVM & SAC
PRINT NAME

11/29/2021
Date

OFFICE USE ONLY – ADMINISTRATIVE OFFICER ACTION – OFFICE USE ONLY

DATE Received: 11/29/2021 FEE Received: \$ 43.00 Identification of zoning district: IA-South

Project description: add stormwater treatment facility

SITE PLAN

#SP-21-042
Application #

11/05/2021
Approval Date

SUBDIVISION

Application #

Approval Date

CONDITIONAL USE

Application #

Approval Date

VARIANCE

Application #

Approval Date

MISCELLANEOUS

Application #

Approval Date

FINAL ADMINISTRATIVE OFFICER ACTION Z O N I N G P E R M I T



APPROVED

12/03/2021

Approval Date

DJ - HOO
Administrative Officer's Signature

Permit EFFECTIVE date 12/18/2021

Permit EXPIRATION date 12/02/2022

CONDITIONS of Approval



Provided applicant copy of URBEC or VCBE Standards Handbook or



Not Applicable



DENIED

Denial Date

Administrative Officer's Signature

REASON for DENIAL

Notice of Appeal Rights: Any interested person may appeal this decision by filing a written Notice of Appeal with the clerk of the Development Review Board within fifteen [15] days of the date of this decision. The notice of appeal must be accompanied by a filing fee of \$223.00.

This permit does NOT authorize commencement of any development activity approved by the permit until the permit takes effect as set forth above. Site modifications and improvements made prior to this permit becoming effective may be subject to removal and site restoration if a timely appeal is commenced.

NOTE: The applicant or permittee retains the obligation to identify, apply for, and obtain relevant state permits for this project. Call (802) 477-2241 to speak with the regional Permit Specialist.



Physical Plant Department
284 EAST AVENUE
BURLINGTON, VERMONT 05405
Project Manager: Scott Goodwin

**KREBS &
LANSING**
CONSULTING ENGINEERS

164 Main Street, Suite 201
Colchester, Vermont 05446

P: (802) 878-0375
www.krebsandlansing.com

Parameter	Value
pH range	6.0 to 7.0
Compost (low phosphorus or leaf compost)	Welland soil may contain 3% max low phosphorus compost (Compost shall have no more than 0.2% total phosphorus)
Total Phosphorus	4 mg/kg utilizing Mehlich-3 or Modified Morgan test
Soluble salts	500 ppm, maximum
Soil (<u>low hydraulic conductivity (0.1-0.01 ft/day)</u>)	
Sieve Size	Percent Passing
0.5"	±10%
No. 10	75-90% (±5%)
No. 100	40-50% (±5%)
No. 200	25-50% (±5%)

6" mechanical rubber pipe plug or approved equivalent

12"

6" PVC SDR35

90° PVC SDR35 elbow

6" PVC SDR35

FLOW

Level Wetland Cleanout

N. T. S.

N.T.S.



N.T.S.



NTC

NTC



172

NTS



1. *The methods and materials of construction shall conform to the latest standards of the Municipality and the State of Vermont. All work shall be in conformance with all permits and approvals issued for the project. In case of conflict, the more stringent specification shall apply as directed by Engineer. All work shall be done in a workmanlike manner and completed in the time specified by Owner.*
2. *The Contractor shall be responsible for all work and materials shown and required to make the job complete. These drawings do not show every fitting or appurtenance. Materials shall be as specified on the drawings. Manufacturer's product specifications shall be submitted for all materials to the Engineer for approval prior to installation.*
3. *The location and size of existing underground utilities is not warranted to be exact or complete. The Contractor shall field locate all utilities and shall contact the affected utility company, the Engineer and the Municipality prior to making any hook ups. The Contractor shall be solely responsible for all existing utilities and their uninterrupted services. The Contractor shall contact Dig Safe and other non-member utilities prior to any excavation.*
4. *All off-site backfill, sheeting and shoring, dewatering, clearing and grubbing, erosion control, dust control, traffic control, grading, and all incidentals shall be included as part of the required work.*
5. *Repair of all disturbed areas, grading, seeding, mulching, repair of roads and curbs, paving, and other incidentals are included as part of the required work. All disturbed areas shall be loamed and mulched until permanent ground cover is established.*
6. *The Contractor shall be responsible for all construction layout and shall verify all horizontal control and temporary bench marks before use.*
7. *The workers and public shall be protected by the Contractor from any and all hazards connected with the construction work. Open trenches, materials, or equipment within the working limits are to be guarded by the use of adequate barricades or flaggers. All barricades left in position overnight are to be properly lighted. Kerosene pots are not acceptable. When work narrows the usable pavement, flaggers shall be employed to aid the flow of traffic so that there will be no undue delays. The Contractor shall be held responsible for the safety of all workers and the general public and all damages to property occurring from or upon the work occasioned by negligence or shall be held responsible for the safety of all workers and the general public and all damages to property occurring from or upon the work occasioned by negligence or day or night within the working area. All work shall be in conformance to OSHA regulations, Title 19, Parts 1926.651 and 1926.652, and applicable to VOSH regulations.*
8. *Existing plantings are located in general areas as shown on the plans. Contractor shall protect plantings scheduled to remain so as not to damage these or their root systems.*
9. *Contractor shall comply with all permits and approvals issued for this project.*
10. *Slope stability upon unsaturated soil conditions. If during construction saturated soils are encountered, contact the Engineer immediately.*

Project No. 18314
Scale no to scale
Drawn by DMR
Checked by _____
Date 09/27/2021

Revisions	
No.	Date

Drawing Title
Civil Details

Drawing No.

CD-1

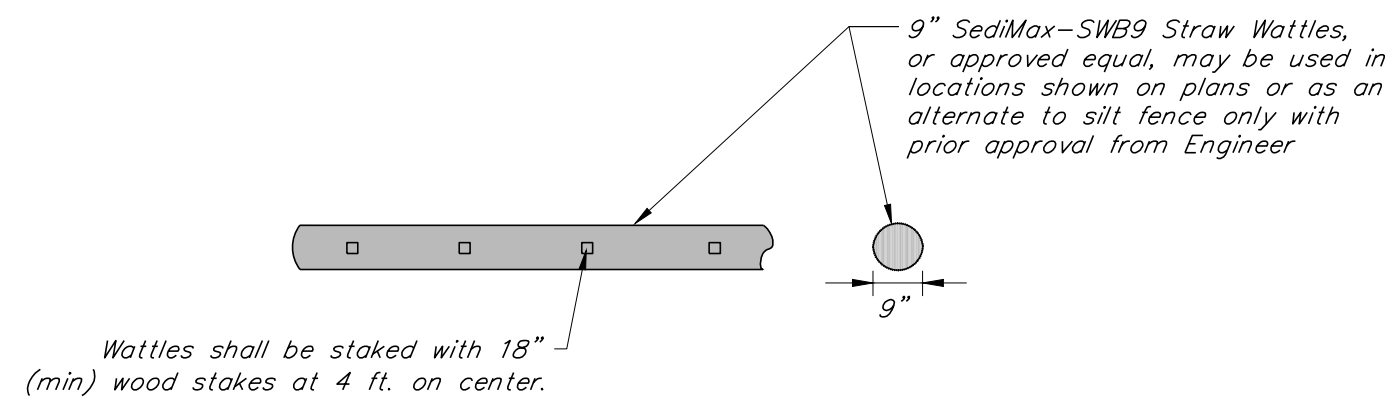
18314\DWGS\Potash Storm DETAIL S.dwg

Erosion Prevention and Sediment Control Notes

- Contractor shall be responsible for complying with all State and Local erosion prevention and sediment control standards and permit requirements during construction. The NOI for the State Erosion Prevention & Sediment Control Permit shall be posted near the construction entrance, or in a location visible to the public.
- This project is subject to the permit conditions for an Low Risk Construction Stormwater Permit. The Site 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), maintenance, and reporting.
- The limit of disturbance shall be clearly defined by Contractor's surveyor prior to clearing. Clearing and grubbing shall not begin until disturbance limits and sediment controls are in place. All roots, stumps and deleterious materials shall be removed from the site. The Contractor shall minimize the amount of disturbed land at any given time.
- The erosion prevention and sediment control practices shown on these plans are the minimum required for the project. The Contractor shall employ and maintain as many best management practices as necessary to prevent soil from leaving the construction site. If evidence is found of sediment tracking or eroded soil leaving the construction site, the Engineer may direct Site Contractor to implement additional best management practices at no additional cost to Owner.
- All areas of disturbance shall be permanently or temporarily stabilized as soon as possible and within 48 hours of final grading. All areas of disturbance shall be at least temporarily stabilized within 14 days of initial disturbance or daily during winter construction unless the following exceptions apply.
 - Stabilization is not required if earthwork is to continue in the area in the next 24 hours and there is no precipitation forecast in the next 24 hours.
 - Stabilization is not required if the work is occurring in a self-contained excavation (i.e. no outlet) with a depth of 2 ft. or greater (e.g. house foundation excavation, utility trenches). Stabilization measures shall include mulch and netting, erosion control matting, crushed stone, gravel, or pavement.
- Unless specifically indicated on the plans acceptable methods of stabilization shall include:
 - STRAW Mulching (NO HAY) – 2 tons per acre. Approximately 2" uniform thickness. Only allowed on relatively flat areas with minimum upslope watershed. Mulch MUST be properly secured with netting to prevent material from being blown away by wind (windthrow).
 - Hydroseeding* – Applied at the manufacturer's recommended application rate. Contractor shall provide evidence of proper application rate. Hydroseeding must be accompanied by erosion control matting if used in areas of concentrated flow.
 - Erosion control matting – S150BN matting must be applied to all slopes 3:1 (H:V) or greater (unless otherwise indicated) and in areas of concentrated flows.
 - Crushed stone or crushed gravel – Typically used for temporary access roads and construction staging areas.
- The Contractor shall use water for dust control.
- A stabilized construction entrance (See Detail) shall be installed and maintained at all construction access locations if construction vehicles travel off the existing hardscape. Contractor shall be responsible for installing crushed stone to provide stable areas for construction vehicle traffic, staging, and storage. The Contractor is responsible for providing and maintaining sufficient stone to prevent rutting and sediment tracking.
- Any paved roads used by construction vehicles shall be swept daily, or at a greater frequency, if dirt or gravel is tracked from the site. The swept debris shall be immediately removed from face of curb if applicable.
- All temporary erosion and sediment control measures shall be removed within 30 days after final stabilization or after the measures are no longer needed, unless otherwise authorized.
- Seeded areas shall be watered sufficiently to ensure fully vegetated grass growth is established no later than 6 weeks from initial seed/hydroseed placement.
- All sediment removed from sediment control practices shall be placed in an approved soil disposal area.
- All areas that do not have established vegetation by October 15th must be stabilized in accordance with the Winter Stabilization requirements outlined on the plans.
- After permanent seeding the Contractor shall be responsible for watering to ensure adequate vegetative growth. Weed and crab grass growth is not considered acceptable vegetative growth.
- The location of temporary construction fencing and the temporary access shown on the plan are for schematic purposes only. The Contractor shall be responsible for providing all necessary temporary construction fencing, temporary roads, staging areas, etc., necessary to complete the work.
- Water from dewatering activities that flows off site must be clear. Turbid, or visibly discolored water must not be pumped into storm sewers.
- Contractor shall sign on as the Co-Permittee for the State of Vermont Erosion Prevention and Sediment Control permit for the project.
- 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 traveled 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 workday.

NOTE:

- Contractor shall be responsible for the installation, maintenance, and removal of straw wattles in all locations shown on the plans.
- Maintenance shall be performed as needed and material removed when sediment reaches half of product height. Remove wattle after successful establishment of vegetation.



Typical Straw Wattle Sediment Control

N.T.S.

North American Green S150BN

Straw erosion control blanket shall be S150BN as manufactured by North American Green, Inc. or equivalent. Erosion control blanket shall have the following properties:

Material Specifications

Erosion control blanket shall be a machine-produced mat of 100% agricultural straw.

The blanket shall be of consistent thickness with the straw evenly distributed over the entire area of the mat. The blanket shall be covered on the top and bottoms sides with a 100% biodegradable woven natural fiber netting having an approximate 0.5" X 1.0" mesh and be sewn together on 1.5" centers with degradable thread.

Installed as per manufacturer's specifications.

Erosion Control Matting

Material Content

Straw:	100% (.50 lbs/sq.yd.) (.27 kg/m2)
Netting:	TOP – Leno woven 100% biodegradable organic jute BOTTOM – 100% biodegradable organic jute
Weight:	TOP – approx. 9.35 lb/1000 s.f. BOTTOM – approx. 7.7 lb/1000 s.f.
Thread:	Biodegradable

Soil and Seeding Notes

- Topsoil shall have a minimum 5" depth except where additional depth is specified on the Landscape plan. Topsoil shall be natural, fertile, friable soil representative of local productive soil and free of clay lumps, stones, subsoil or other foreign matter larger than 1/2 inch diameter, not frozen or muddy. Acidity pH shall range from 5.5 to 7 and shall contain 4% organic material as a minimum. Samples of topsoil are to be given to UVM Physical Plant's Ground Manager for inspection before approval. All testing costs will be paid by Contractor.
- The Contractor shall have a soil analysis performed on the topsoil (UVM soil testing lab 656-3030). The results of soil analysis shall be provided to the UVM Physical Plant Grounds Manager for approval. The soil analysis must state:
 - Percentages of organic matter, inorganic matter (silt, clay, and sand), deleterious materials, and pH levels.
 - Sieve analysis and mineral and plant nutrient content of topsoil.
 - Test for herbicide contamination and provide report certifying that no herbicides are present.
 - State quantities of nitrogen, phosphorous, and potash nutrients and any limestone, aluminum sulfate, or other soil amendments to be added to produce satisfactory topsoil.
 - Topsoil shall meet the following gradation:

Sieve Sizes:	Percentage Passing:
1" inch	100%
1/2" inch	95-100%
No. 4	75-100%
No. 10	60-100%
No. 200	10-60%
- Commercial fertilizer shall be a complete plant food containing nitrogen (50% organic) phosphoric acid and potash. Soil tests will indicate composition required.
- Hydro seeding and tacifier is the required practice for turf establishment. Specifications are:
Seed for Lawn Areas: UVM #1 mix using 6 lbs per 1,000 square feet.
71.46% Min. Futura 3000 PER RYE GRASS Germ: 90%
14.81% Min. Dynasty TALL FESCUE Germ: 90%
9.74% Min. CREEPING RED FESCUE Germ: 90%
2.32% Max. CROP
1.61% Max. INERT
0.06% Max. WEED
Hydroseed Additives:
Fertilizer: 19-19-19 75 lbs per 1,000 gallons of water
Lime: 100 lbs. per 1,000 gallons of water
Mulch: 300 lbs. per 1,000 gallons of water.
Tacifer: 5 lbs. per 1,000 gallons of water.

Seed for WETLAND Natural Areas shall be Vermont Conservation & Wildlife mix, by the Vermont Wetland Plant Supply Company, or approved equal.

Manufacturer's tag shall be given to Physical Plant's Ground Manager prior to seeding for approval.

Contractor shall provide evidence of proper application rate for both seed and hydramulch.

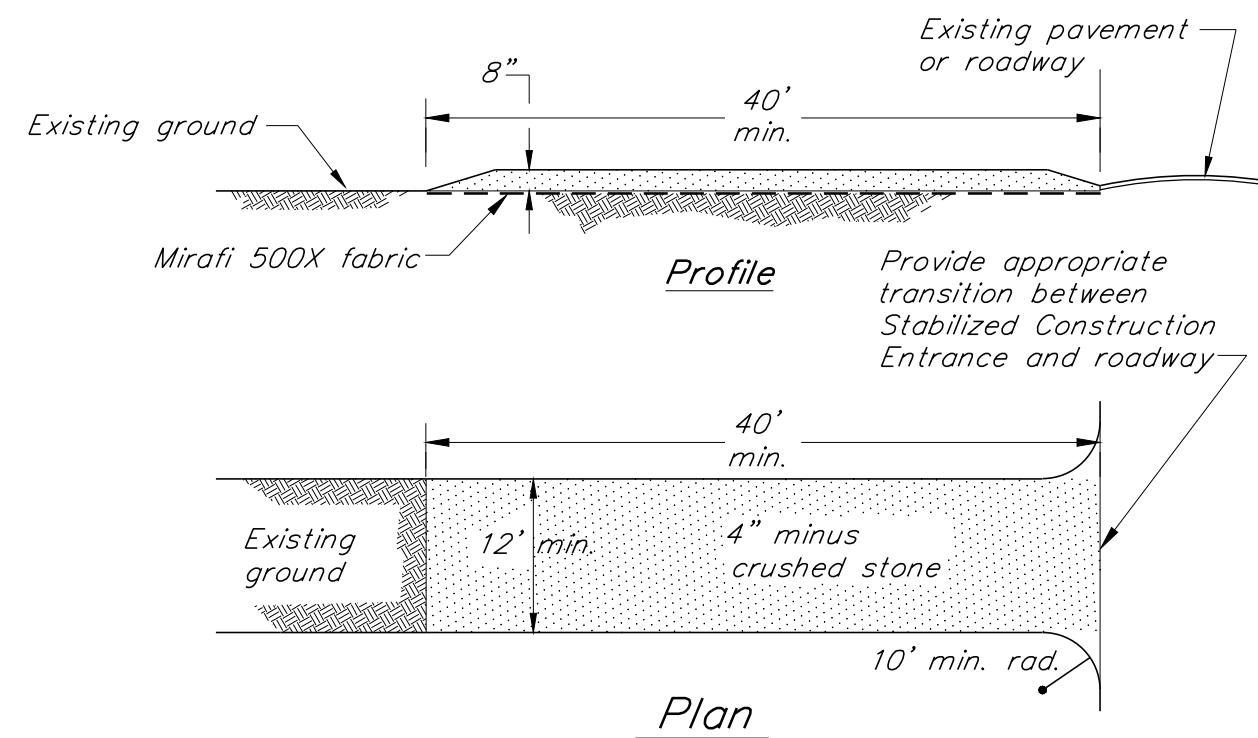
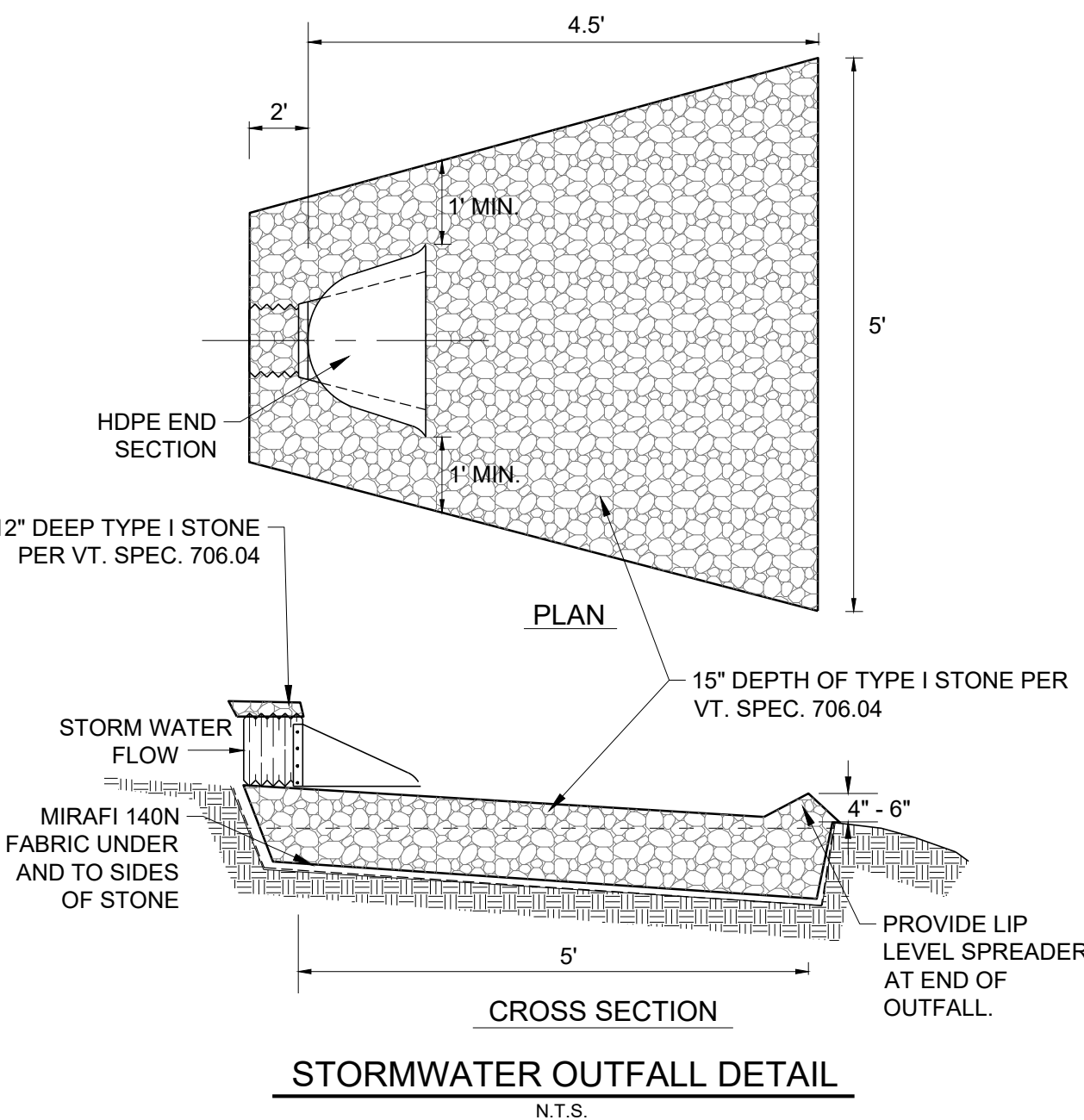
- Areas having soil compaction as a result of construction shall be roto-filled prior to seeding.
- If hand seeding, only straw mulch is to be used and secured by netting either organic or inorganic. If netting is used, it must be removed before the first mowing.
- Starter fertilizer shall be applied at the manufacturer's suggested rate at the time of seeding. Fertilizer application will not be allowed in sensitive areas and adjacent to drainage ways as determined by the Engineer.
- Watering is to be done by the Contractor and is to last for the duration of the warranty period to maintain proper growth. UVM will supply the water, but all apparatus necessary to apply the water must be furnished by the Contractor (i.e. hoses, sprinklers, etc.).
- Staking of all topsoil and seeded areas to control foot traffic will be required. Contractor will be responsible for maintaining temporary barricades and repairing any damaged areas until vegetation is fully established. Unless otherwise specified, acceptable staking materials will be grade stakes and twine or string with flagging attached for visibility.
- A guarantee of grass establishment through the first mowing is required. Any sparse or bare areas larger than 1 sq. ft. are to be redone. Weeds, crab grass, dandelions, clover, and other non-grass species are not acceptable for grass establishment and shall be repaired.
- The Contractor is responsible for the first mowing. After the first mowing and prior to the University taking responsibility for the lawn areas the Contractor and the Grounds Manager shall meet to inspect the vegetation establishment
- Contractor is responsible for all topsoil to complete the project as shown. If existing volume of topsoil is inadequate, the Contractor shall purchase offsite approved topsoil as necessary.

Tree Protection & Landscape Clearing

- All renovation and new construction must address tree protection and selective clearing. Since the University of Vermont has many memorial plantings, the protection of these specimens must be planned for and documented. The procedures shall be discussed, diagrammed, and implemented by the appropriate committee. The Physical Plant's Ground Manager shall have final say on a program's acceptance.
- Prior to any construction activity the General Contractor shall meet with the Grounds Manager to review the staging and protection plan for the adjacent landscaping.
- Damage caused to specimens due to contractor negligence shall be replaced at the cost of the contractor. Damage shall be reported to the Grounds Office immediately after event @ (802) 656-3866. Replacement value and condition of each specimen is to be determined by the Physical Plant's Grounds Manager.
- All trees within the designated construction zone shall be protected by no less than 4' high orange construction barrier fencing at the drip line completely encompassing the tree. No storage of building materials shall be allowed within tree protection fencing.
- All trees within 30' of the construction zone shall be protected by no less than 4' high plastic fencing at the drip line.
- If equipment is allowed by the Grounds Manager to pass over a tree's root zone, then a minimum of 8" of wood chips shall be laid and maintained by the contractor.
- If tree pruning is necessary, the Contractor shall contact the Grounds Manager (802-656-3866) to perform the necessary pruning.
- During excavation, if root impact is unavoidable and therefore approved by the Grounds Manager, any root system encountered which is 1" in diameter or larger will be pruned by authorized personnel only. ANA standards for root pruning shall be followed.
- Where an existing tree meets new landscaping, grade topsoil at a depth of 6" (six inches) from the drip line to 0" (zero inches) at the base of the tree.

Winter Construction Requirements (October 15th - April 15th)

- For areas to be stabilized with vegetative cover, seeding shall be completed no later than September 15th to ensure adequate growth and cover.
- If seeding is not completed by September 15th, additional non-vegetative protection must be used to stabilize the site for the winter period. This includes the use of Erosion Control Matting or netting of a heavy mulch layer.
- Where mulch is used for temporary stabilization it must be applied at double the standard rate, or a minimum of 3 inches with an 80%-90% cover.
- Stabilized Construction Entrances shall be enlarged to provide for snow stockpiling.
- Limits of disturbance shall be moved or replaced to reflect any revised boundaries of winter work.
- The site shall be managed to provide adequate snow storage and control of meltwater. Cleared snow shall be stored down slope of all areas of disturbance and out of stormwater treatment structures.
 - A minimum 25 foot buffer shall be maintained from perimeter controls such as silt fence.
 - Drainage structures must be kept open and free of snow and ice dams.
 - Silt fence and other practices requiring earth disturbance must be installed ahead of frozen ground.
- To ensure cover of disturbed soil in advance of a melt event, areas of disturbed soil must be stabilized at the end of each work day, with the following exceptions:
 - If no precipitation within 24 hours is forecast and work will resume in the same disturbed area within 24 hours, daily stabilization is not necessary.
 - Disturbed areas that collect and retain runoff, such as house foundation or open utility trenches.
- Prior to stabilization, snow or ice must be removed to less than 1 inch thickness.
- Use stone to stabilize areas such as the perimeter of buildings under construction or where construction vehicle traffic is anticipated. Stone paths should be 10-20 feet wide to accommodate vehicular traffic.



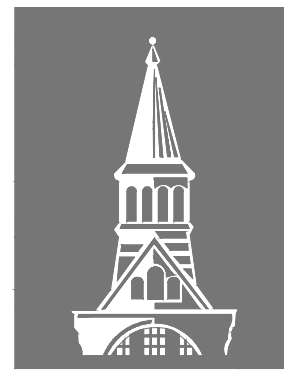
Note:

- Contractor shall be responsible for the installation, maintenance, and removal of a stabilized construction entrance at each construction entrance for the project. The Construction Stabilized Entrance and its continued maintenance shall be a minimum measure to prevent tracking of sediment off-site.
- Contractor to use Mirafi 500x under stone for temporary construction roads.
- Stabilized construction entrances shall be repaired when voids are 80% filled with sediment. Repair shall include adding additional 4" minus crushed stone and/or removal of contaminated stone.

THIS DETAIL TO BE USED FOR ALL TEMPORARY STONE STABILIZATION AREAS IDENTIFIED ON THE PLANS

Temporary Stabilized Construction Entrance & Staging Areas

N. T. S.



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Physical Plant Department
284 EAST AVENUE
BURLINGTON, VERMONT 05405
Project Manager: Scott Goodwin

CIVIL ENGINEER

KREBS & LANSING
CONSULTING ENGINEERS
164 Main Street, Suite 201 P: (802) 878-0375
Colchester, Vermont 05446 www.krebsandlansing.com

Project:

UNIVERSITY of VERMONT

Potash Brook
Watershed

South Burlington, Vermont

Project No. 18314
Scale no to scale
Drawn by DMR
Checked by
Date 09/27/2021

Revisions

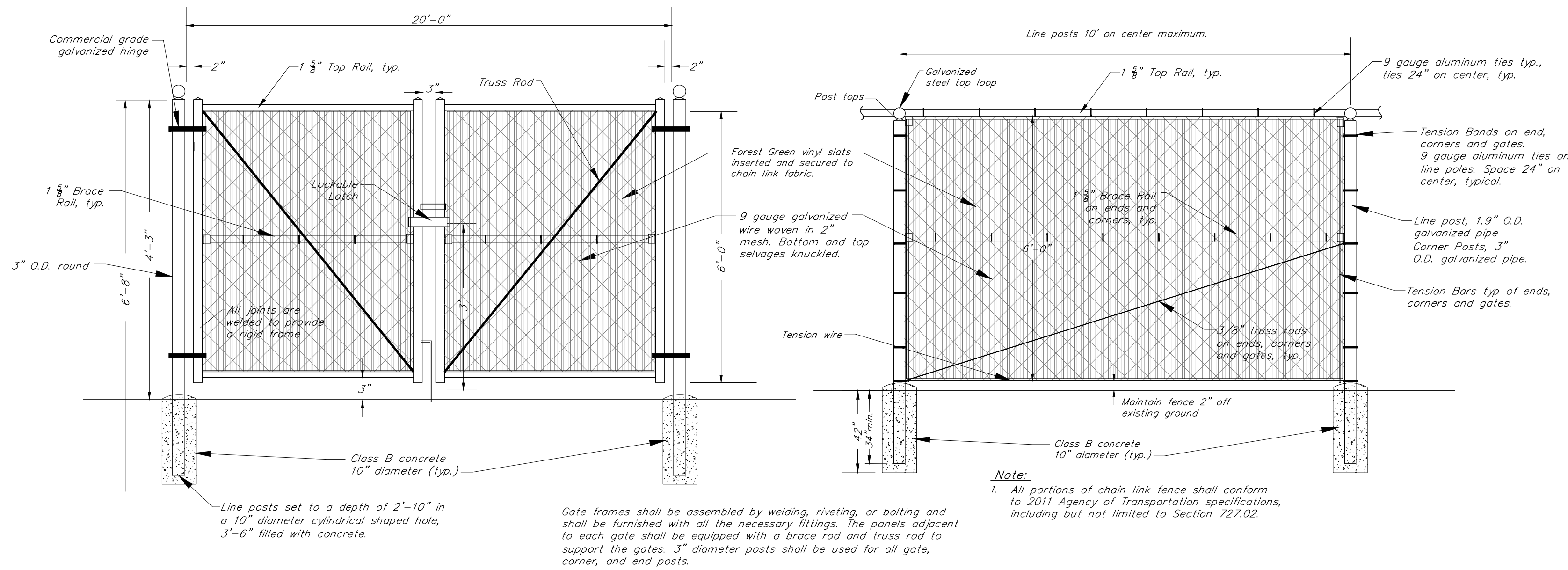
No.	Date

Drawing Title

Civil Details

Drawing No.

CD-2



Typical Gate

N.T.S.

Chain Link Fence Dumpster Enclosure

N.T.S.

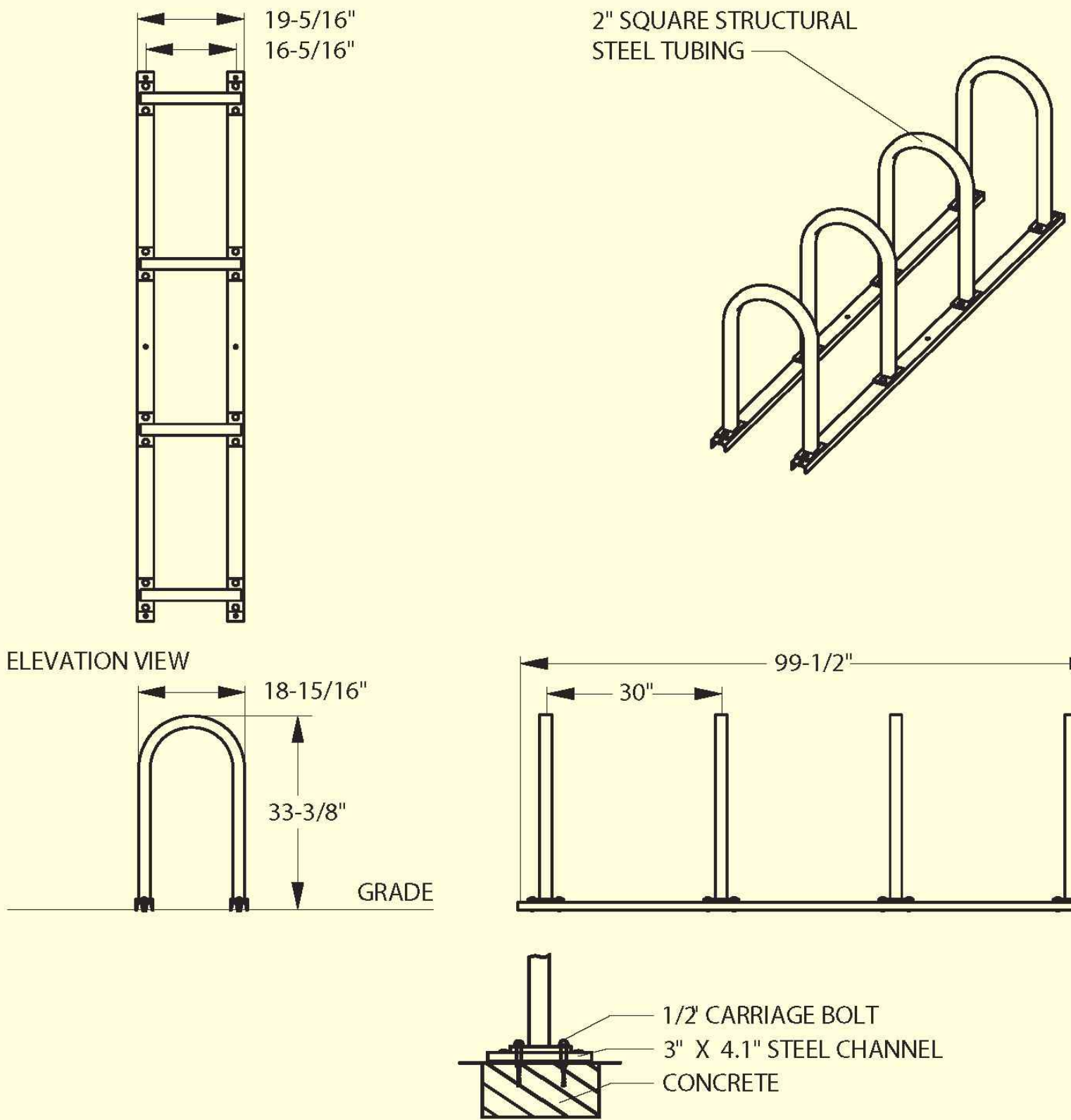


627 Amersale Drive
Naperville, IL 60563
Phone: (800) 323-5664
Fax: (630) 897-0573
sales@belson.com

Model # U200-8-G

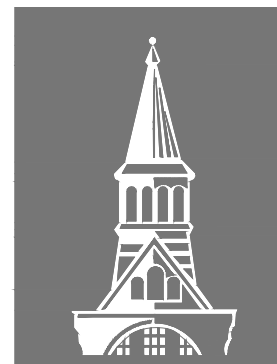
Dimension Sheet

SQUARE U RACK ON RAILS | 4 LOOPS 8 BIKES



Rail Mount U-Style Bike Rack

N.T.S.



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Physical Plant Department
284 EAST AVENUE
BURLINGTON, VERMONT 05405
Project Manager: Scott Goodwin

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CONSULTING ENGINEERS
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Colchester, Vermont 05446
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www.krebsandlansing.com

Project:
UNIVERSITY of VERMONT
Potash Brook
Watershed
South Burlington, Vermont

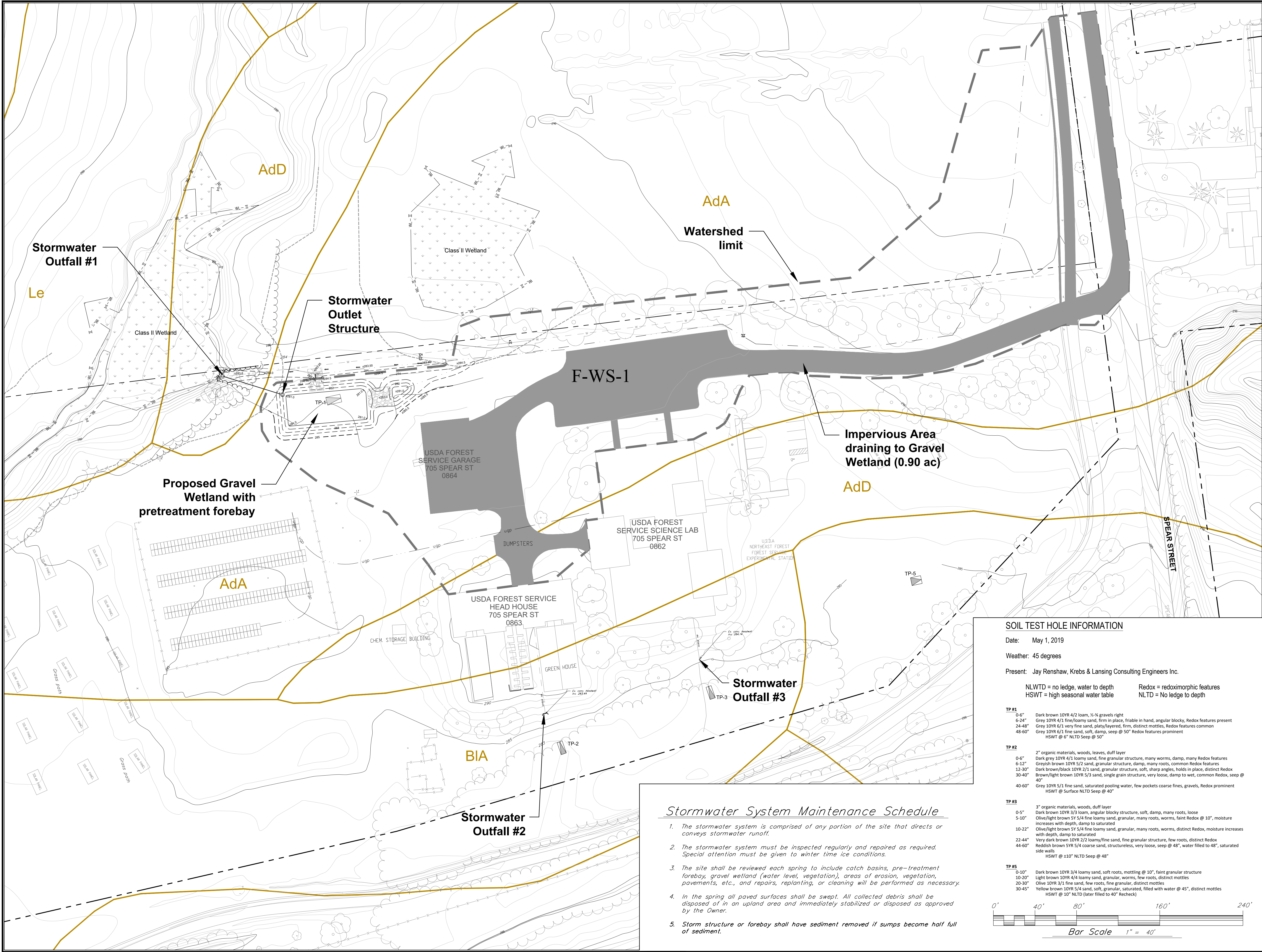
Project No. 18314
Scale no to scale
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Date 10/26/2021

Revisions	No.	Date

Drawing Title
Civil Details

Drawing No.

CD-3



Stormwater System Maintenance Schedule

- The stormwater system is comprised of any portion of the site that directs or conveys stormwater runoff.
- The stormwater system must be inspected regularly and repaired as required. Special attention must be given to winter time ice conditions.
- The site shall be reviewed each spring to include catch basins, pre-treatment forebay, gravel wetland (water level, vegetation), areas of erosion, vegetation, pavements, etc., and repairs, replanting, or cleaning will be performed as necessary.
- In the spring all paved surfaces shall be swept. All collected debris shall be disposed of in an upland area and immediately stabilized or disposed as approved by the Owner.
- Storm structure or forebay shall have sediment removed if sumps become half full of sediment.

SOIL TEST HOLE INFORMATION

Date: May 1, 2019
Weather: 45 degrees
Present: Jay Renshaw, Krebs & Lansing Consulting Engineers Inc.

NLWTD = no ledge, water to depth
HSWT = high seasonal water table
Redox = redoximorphic features
NLTD = No ledge to depth

TP #1
0-6" Dark brown 10YR 4/2 loam, 1/4-1/2 gravel right
6-24" Grey 10YR 4/1 fine/loamy sand, firm in place, friable in hand, angular blocky, Redox features present
24-48" Grey 10YR 6/1 very fine sand, platy/layers, firm, distinct mottles, Redox features common
48-60" Grey 10YR 6/1 fine sand, soft, damp, seep @ 50" Redox features prominent
HSWT @ 6" NLTD Seep @ 50"

TP #2
2" organic materials, woods, leaves, duff layer
0-6" Dark grey 10YR 4/1 loamy sand, fine granular structure, many worms, damp, many Redox features
6-12" Greyish brown 10YR 5/2 sand, granular structure, damp, many roots, common Redox features
12-30" Dark brown/black 10YR 2/1 sand, granular structure, soft, sharp angles, holds in place, distinct Redox
30-40" Brown/light brown 10YR 5/3 sand, single grain structure, very loose, damp to wet, common Redox, seep @ 40"
40-60" Grey 10YR 5/1 fine sand, saturated pooling water, few pockets coarse fines, gravels, Redox prominent
HSWT @ Surface NLTD Seep @ 40"

TP #3
3" organic materials, woods, duff layer
0-5" Dark brown 10YR 3/3 loam, angular blocky structure, soft, damp, many roots, loose
5-10" Olive/light brown 5Y 5/4 fine loamy sand, granular, many roots, worms, faint Redox @ 10", moisture increases with depth, damp to saturated
10-22" Olive/light brown 5Y 5/4 fine loamy sand, granular, many roots, worms, distinct Redox, moisture increases with depth, damp to saturated
22-44" Very dark brown 10YR 2/2 loamy/fine sand, fine granular structure, few roots, distinct Redox
44-60" Reddish brown 5YR 5/4 coarse sand, structureless, very loose, seep @ 48", water filled to 48", saturated side walls
HSWT @ ±10" NLTD Seep @ 48"

TP #5
0-10" Dark brown 10YR 3/4 loamy sand, soft roots, mottling @ 10", faint granular structure
10-20" Light brown 10YR 4/4 loamy sand, granular, worms, few roots, distinct mottles
20-30" Olive 10YR 3/1 fine sand, few roots, fine granular, distinct mottles
30-45" Yellow brown 10YR 5/4 sand, soft, granular, saturated, filled with water @ 45", distinct mottles
HSWT @ 10" NLTD (later filled to 40" Redox)

0' 40' 80' 160' 240'
Bar Scale 1" = 40'

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Project Manager: Scott Goodwin

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Project:
UNIVERSITY of VERMONT
Potash Brook Watershed
South Burlington, Vermont

Project No. 18314
Scale 1" = 40'
Drawn by DMR
Checked by
Date 9/27/2021

Revisions
No. Date

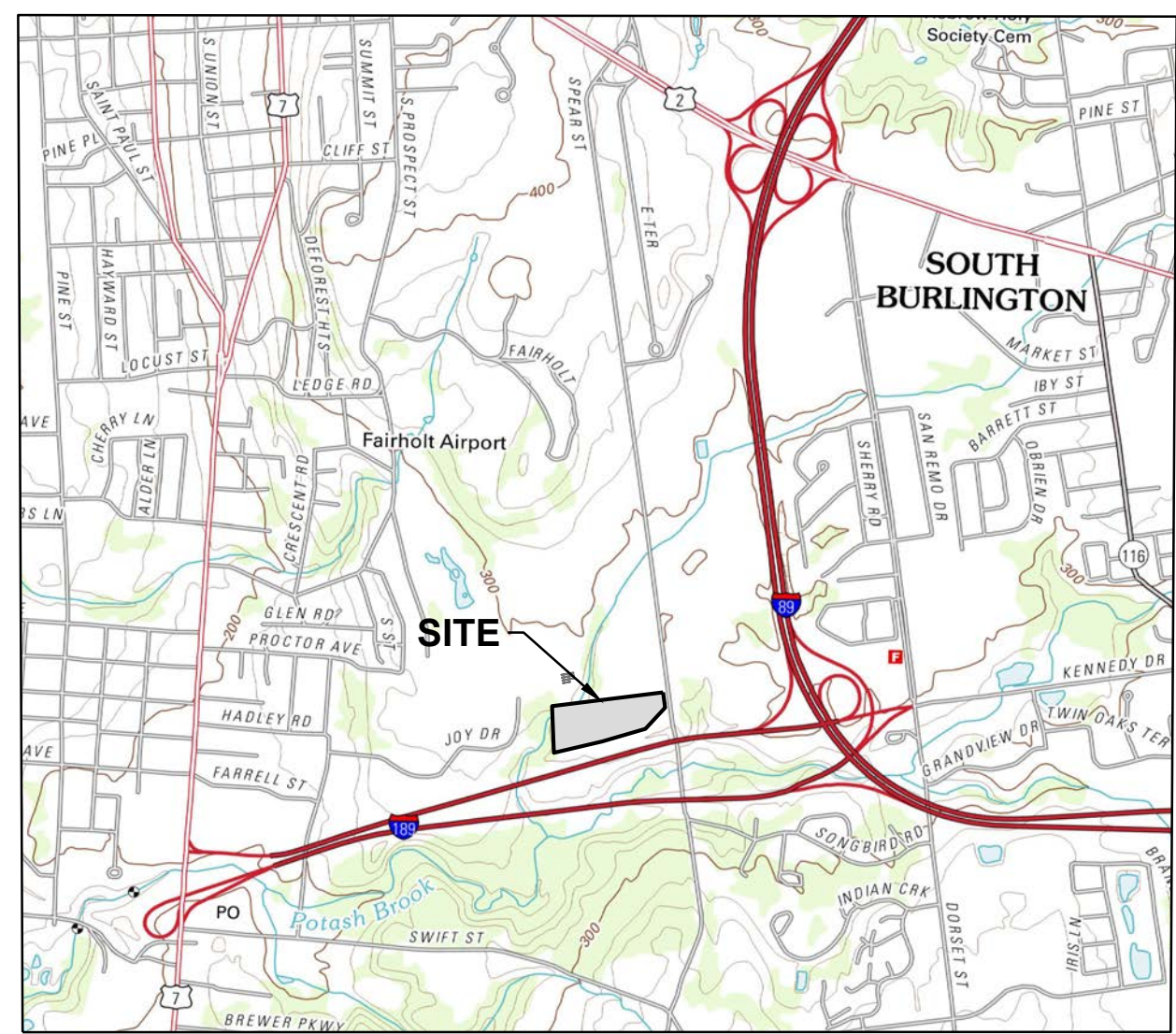
Drawing Title
Forest Services
Overall Stormwater Plan

Drawing No.
SP-F3

14199\DWGS\UVM-Potash WS.dwg
Planning Commission Agenda
Page 61 of 129

Notes:

1. The existing features shown on this plan are base on mapping provide to UVM by the Sells Mapping Company.
2. The underground utilities show on this are based on the UVM Utility Master Plan mapping. Other utilities may exist that are not shown. Underground utilities are approximate and not warranted to be exact or complete. Dig Safe and non member utilities shall be contacted prior to any excavation.
3. Elevations reference the NAVD 88 vertical datum.
4. Horizontal Coordinates are based on the Vermont State Plane Grid coordinate system.
5. Only limited filed surveying was completed for the gravel wetland.



Location Map
1" = 2,000'



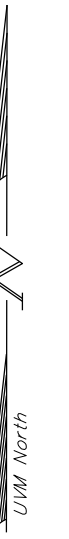
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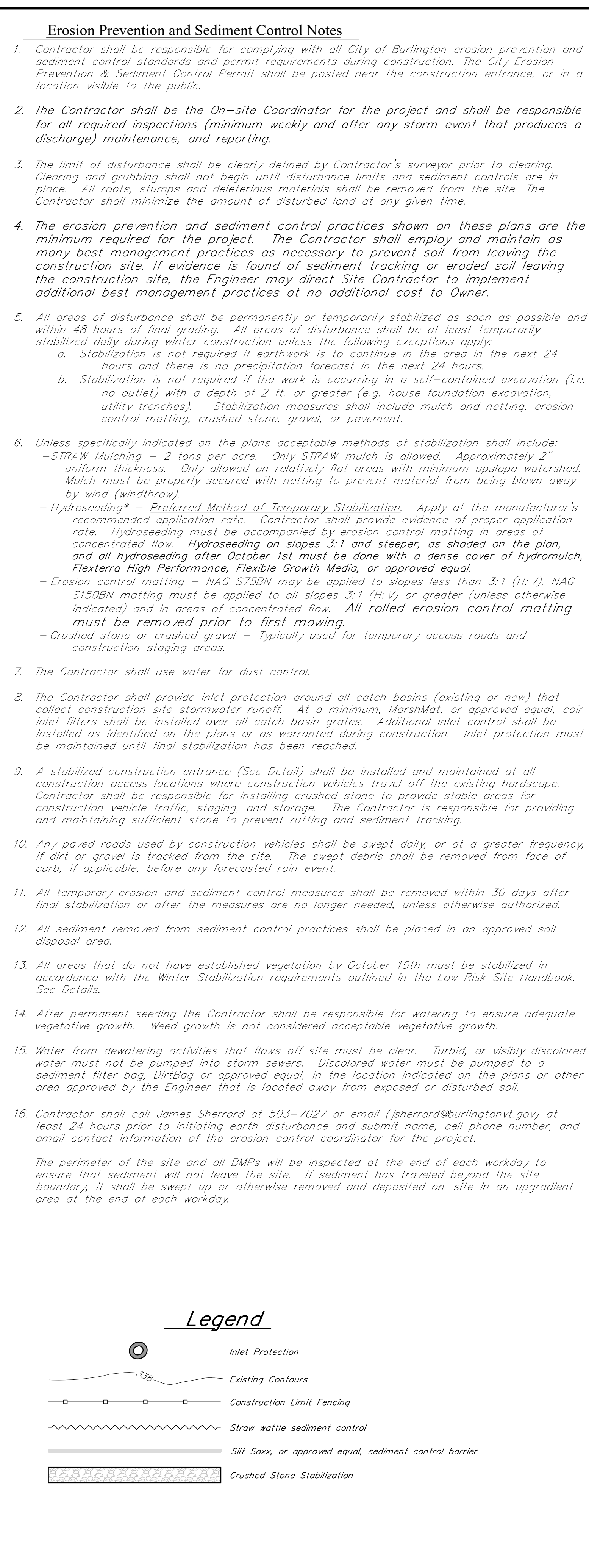
Project:
UNIVERSITY of VERMONT
Potash Brook
Watershed
South Burlington, Vermont

Project No. 18314
Scale 1" = 50'
Drawn by DMR
Checked by
Date 9/27/2021

Revisions	No.	Date

Drawing Title
Forest Services
Existing Conditions Plan

Drawing No.
SP-F4



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BURLINGTON, VERMONT 05405
Project Manager: Scott Goodwin



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Project:
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**Potash Brook
Watershed**
South Burlington, Vermont

Project No. 18314
Scale 1" = 20'
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Checked by _____
Date 09/27/2021

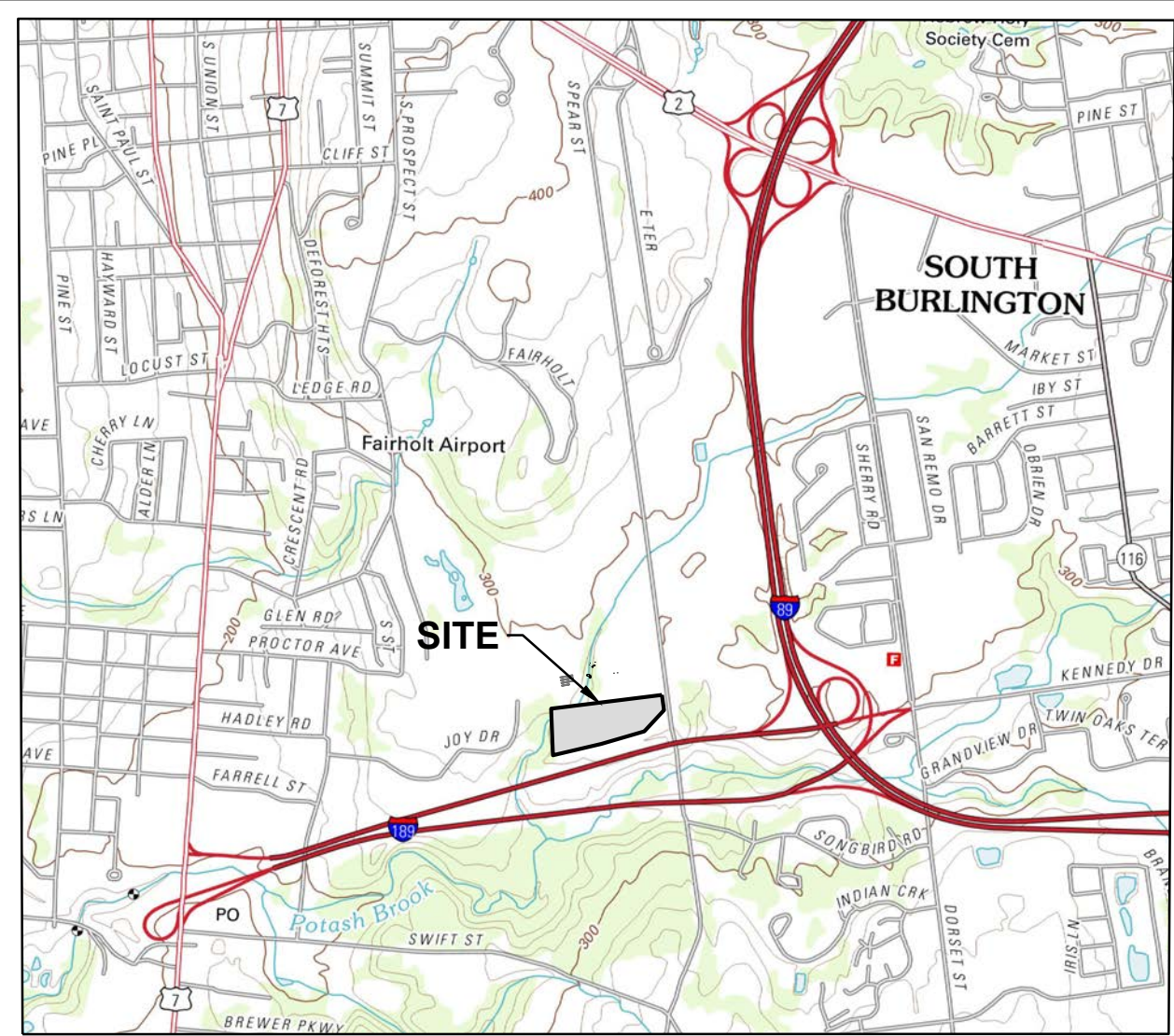
Revisions	
No.	Date

Erosion Prevention & Sediment Control Plan

SP-F5

Notes:

1. The existing features shown on this plan are base on mapping provide to UVM by the Sells Mapping Company.
2. The underground utilities shown on this are based on the UVM Utility Master Plan mapping. Other utilities may exist that are not shown. Underground utilities are approximate and not warranted to be exact or complete. Dig Safe and non member utilities shall be contacted prior to any excavation.
3. Elevations reference the NAVD 88 vertical datum.
4. Horizontal Coordinates are based on the Vermont State Plane Grid coordinate system.
5. Only limited filed surveying was completed for the gravel wetland.



Location Map
1" = 2,000'



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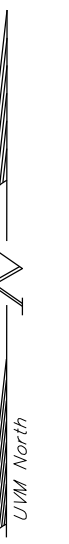
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BURLINGTON, VERMONT 05405
Project Manager: Scott Goodwin

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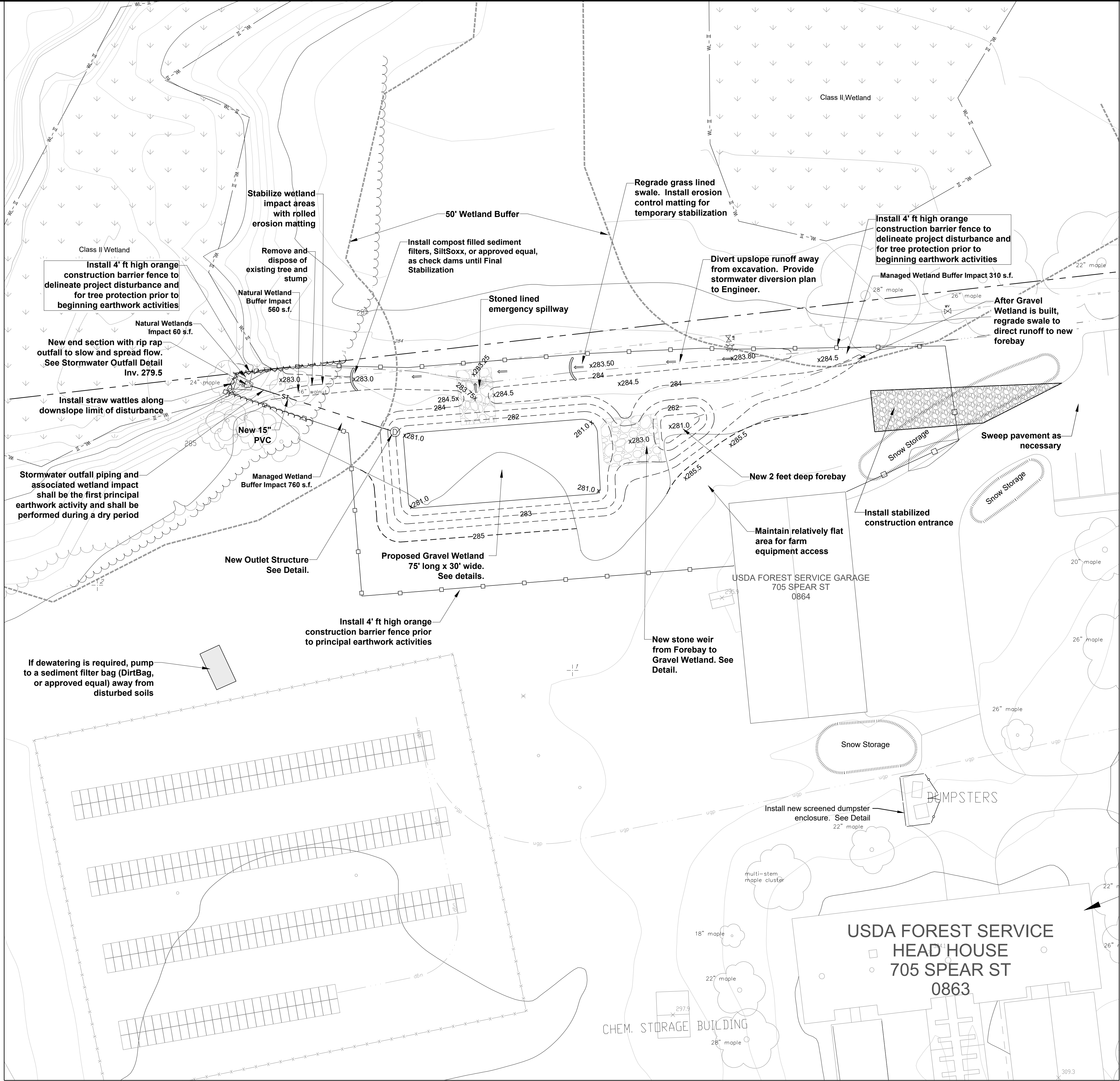
Project:
UNIVERSITY of VERMONT
Potash Brook
Watershed
South Burlington, Vermont

Project No. 18314
Scale 1" = 50'
Drawn by DMR
Checked by
Date 9/27/2021

Revisions	No.	Date
Screened dumpster, bike rack, snow storage	1	11/05/2021

Drawing Title
Forest Services
Overall Site Plan

Drawing No.
SP-F1



Wetland Construction Notes

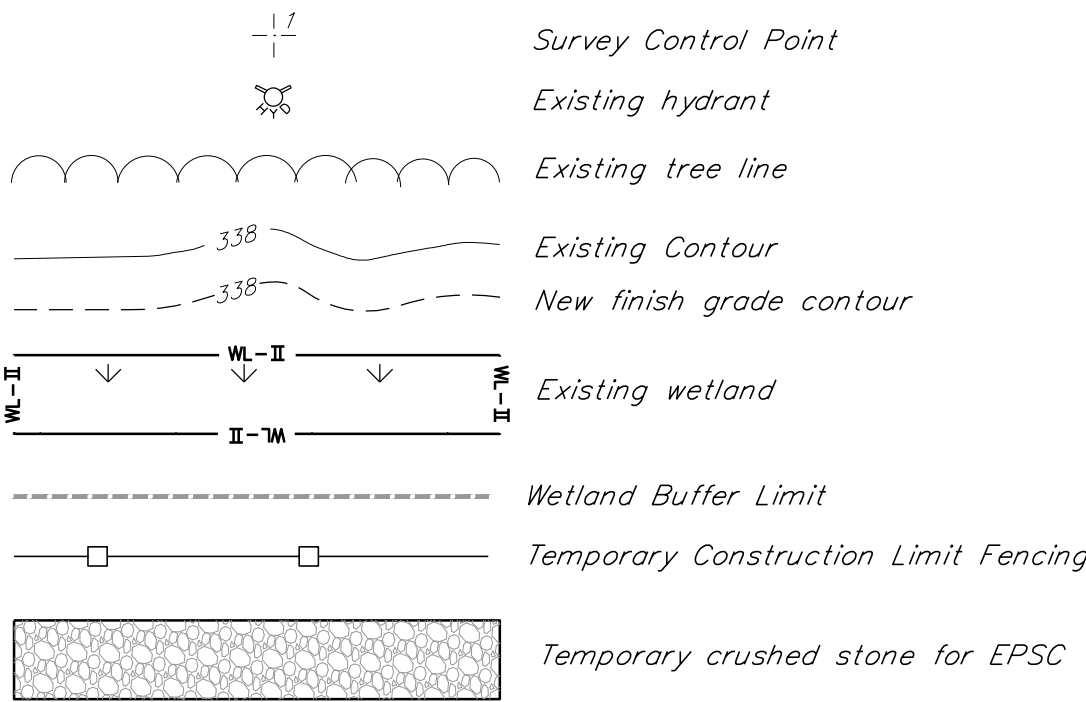
1. Limits of construction shall be clearly marked in accordance with the plans. Maintain wetland flagging and barrier limits adjacent to the wetlands for the duration of construction.
2. Construction staging and stockpiling of materials shall be kept out of wetland and wetland buffers.
3. Construction machinery shall be restricted to as few areas and the shortest duration as possible. Use the lowest ground pressure construction equipment as possible within the wetland and buffer areas to reduce soil compaction and rutting.
4. Contractor shall assess site conditions during construction and adjust accordingly. If the work being performed is causing ruts or excessive disturbance due to soil saturation, methodology, or equipment, STOP WORK and come up with a better approach. This may require waiting until the site dries out, changing equipment, or using mats.
5. Clean equipment brought from other sites, away from the wetland and its buffer so that invasive plants and animals are not introduced into the work site.
6. Use clean fill materials to prevent invasive plant introduction.
7. Use only straw mulch for temporary stabilization material to prevent invasive plant introduction.
8. If temporary fill must be used for access or other construction purposes, make removal easier by placing geotextile fabric or geogrid below the fill.
9. Construction shall only take place during dry conditions.
10. When excavating in the wetland or buffer, separate and stockpile material (topsoil, A horizon, etc.) so it can be replaced with the same or similar integrity prior to extraction.
11. Install plantings in appropriate season.

Wetland Impacts

Natural Wetland Impacts	60 s.f.
Managed Wetland Impacts	0 s.f.
Natural Wetland Buffer Impacts	560 s.f.
Managed Wetland Buffer Impacts	1,070 s.f.

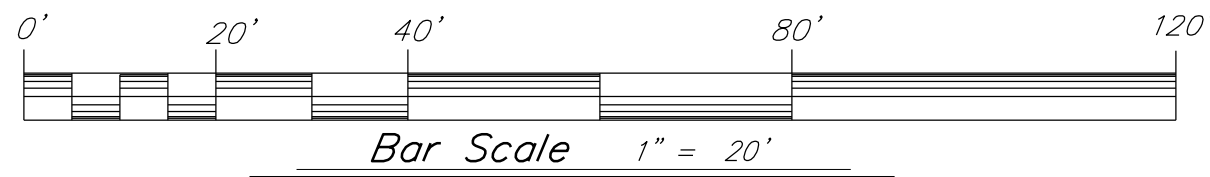
Wetlands shown on this plan were delineated by Arrowwood Environmental in May 2020.

Legend



GENERAL NOTES

1. The Contractor shall be responsible for repairing all disturbed areas back to original condition.
2. All stumps, rock, and other non-approved 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.
3. Exposed soil for construction of the outfall pipe located on the slope of the wetland and wetland buffer are to be limited to the shortest duration possible. Disturbed areas shall be topsoiled, seeded, and stabilized with straw erosion matting (North American Green SC150, or approved equal) within 48 hours of backfill, or before a forecasted rain event, whichever occurs first.
4. Temporary groundwater or surface water dewatering and/or diversion is the responsibility of the Contractor. The Contractor is responsible for providing all necessary pumps and equipment to perform the work. Pumped or by-passed water shall not be visibly discolored.
5. The erosion prevention and sediment control practices shown on these plans are the minimum required for the project. The Contractor shall be responsible for installing and maintaining as many best management practices as necessary to prevent soil from leaving the construction site. If evidence is found of offsite sediment transport by construction vehicle tracking, pump-out/ bypass procedures, or erosion, the Engineer or Owner may direct the Site Contractor to implement additional best management practices at no additional cost to the Owner.
6. Contractor shall be responsible for all costs of importing and placing topsoil and/or compost necessary to complete the project. Contractor shall test topsoil for approval by the Owner and Engineer.
7. 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.
8. Removal of all erosion control matting and other erosion prevention and sediment control practices is the responsibility of the Contractor.



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BURLINGTON, VERMONT 05405
Project Manager: Scott Goodwin

CIVIL ENGINEER



Project:
UNIVERSITY of VERMONT
Potash Brook
Watershed

South Burlington, Vermont

Project No. 18314/14199
Scale 1" = 20'
Drawn by DMR
Checked by
Date 11/05/2021

Revisions	No.	Date
1	11/05/2021	Screened dumpster, bike rack, snow storage

Drawing Title
Forest Services
Stormwater
Site Plan

Drawing No.

SP-F2



southburlington

VERMONT

Notice of Zoning Permit

Property Owner/Applicant:	
Property Address:	

This Permit authorizes the following work:

Permit Number:	
Issue Date:	
Effective Date:	


Administrative Officer

This permit will be issued in accordance with the South Burlington Land Development Regulations. Post this card at the project site in full view of the public beginning on the date of issuance. All work authorized by this zoning permit must start within twelve (12) months of the effective date of the permit.

This permit shall take effect on the effective date above, unless appealed to the South Burlington Development Review Board prior to that date.

The applicant or permittee retains the obligation to identify, apply for, and obtain relevant state permits for this project. Call 802.477-2241 to speak with the regional Permit Specialist.

180 Market Street, South Burlington, Vermont 05403 | 802-846-4106 |
www.southburlingtonvt.gov

E-Notification CERTIFICATE OF SERVICE Regarding Supplementary Information for Draft LUP# 4C0065-3,
For UVM Constructed Wetland at 705 Spear Street, South Burlington VT

I hereby certify that I, Lani Ravin, Associate Planner at the University of Vermont & State Agricultural College, sent a copy of documents, dated December 3, 2021, for the University of Vermont, regarding draft LUP# 4C0065-3, regarding a proposed UVM constructed wetland at 705 Spear Street, South Burlington, by electronic mail to those with email addresses as indicated:

District #4 Environmental Commission
111 West Street
Essex Junction, VT 05452
NRB.Act250Essex@vermont.gov
Rachel.Lomonaco@vermont.gov

University of Vermont & State Agricultural College
c/o Lani Ravin, AICP, Associate Planner
Lisa Kingsbury, Associate Director
Planning, Design & Construction
16 Colchester Avenue
Burlington, VT 05405
Lani.ravin@uvm.edu;
Lisa.kingsbury@uvm.edu;

Donna Kinville, City Clerk
Chair, Selectboard/Chair, Planning Commission
City of South Burlington
180 Market Street
South Burlington, VT 05403
dkinville@sburl.com

Katherine Schad, Burlington City Clerk
Chair, Selectboard/Chair, Planning Commission
City of Burlington
149 Church Street
Burlington VT 05401
burlingtontownclerk@burlingtonvt.gov;
lolberg@burlingtonvt.gov;

Chittenden County Regional Planning Commission
110 West Canal Street, Suite 202
Winooski VT 05404
Permitting@ccrpcvt.org

Agency of Natural Resources

1 National Life Drive, Davis 2
Montpelier, VT 05602-3901
Anr.act250@vermont.gov

Dept. of Public Service
112 State Street, Drawer 20
Montpelier, VT 05620-2601
barry.murphy@vermont.gov;
PSD.VTDPS@vermont.gov;

VTTrans Policy, Planning & Research Bureau
Barre City Place
219 N. Main Street
Barre, VT 05641
AOT.Act250@vermont.gov;

Agency of Agriculture, Food & Markets
116 State Street, Drawer 20
Montpelier, VT 05620-2901
AGR.Act250@vermont.gov;

Division for Historic Preservation
National Life Building, Drawer 20
Montpelier, VT 05620
scott.dillon@vermont.gov;
james.duggan@vermont.gov;
ACCD.ProjectReview@vermont.gov;

Dated at Burlington, Vermont, December 3,
2021

Lani Ravin, AICP

Lani Ravin, AICP, Associate Planner
Planning, Design & Construction
University of Vermont & State Agricultural College

**ARCHAEOLOGICAL RESOURCES ASSESSMENT
FOR THE UNIVERSITY OF VERMONT HILLEL CATCH BASIN REPLACEMENT
PROJECT
#439 COLLEGE STREET
CITY OF BURLINGTON, CHITTENDEN COUNTY, VERMONT**



Submitted to

**Lani Ravin
Planning, Design and Construction
University of Vermont
16 Colchester Avenue
Burlington, VT 05405**

Submitted by

**Kathleen Kenny and John G. Crock, Ph.D.
Consulting Archaeology Program
University of Vermont
180 Colchester Ave
111 Delehanty Hall
Burlington, Vermont 05405**

**UVM CAP Report #1386
November, 2021**

INTRODUCTION

In August of 2021, contractors for the University of Vermont replaced and upgraded the stormwater catch basin system in the parking lot area south of the Hillel Center at #439 College Street in the City of Burlington, Chittenden County, Vermont (Figures 1 and 2). A large portion of this project involved the installation of two parallel subsurface pipes, about 0.91 m (3 ft) in diameter, for water storage, bookended by two precast concrete catch basin units. The precast concrete catch basin at the west end was not replaced during this project, but the undersized structure at the eastern end was (Figure 3). Archaeological monitoring was recommended as part of the ACT 250 permit process for this project based on the potential presence of both historic and PreContact cultural resources. Not only was this property an early historic period settlement in Burlington but was also projected to be close to the geologic boundary between till mantling bedrock (up slope) and marine beach gravel (downslope), an environment which may have been utilized by precontact era Native American populations (Kenny and Crock 2020). This report documents the historic background research and archaeological monitoring conducted for the Archaeological Resources Assessment of the project.

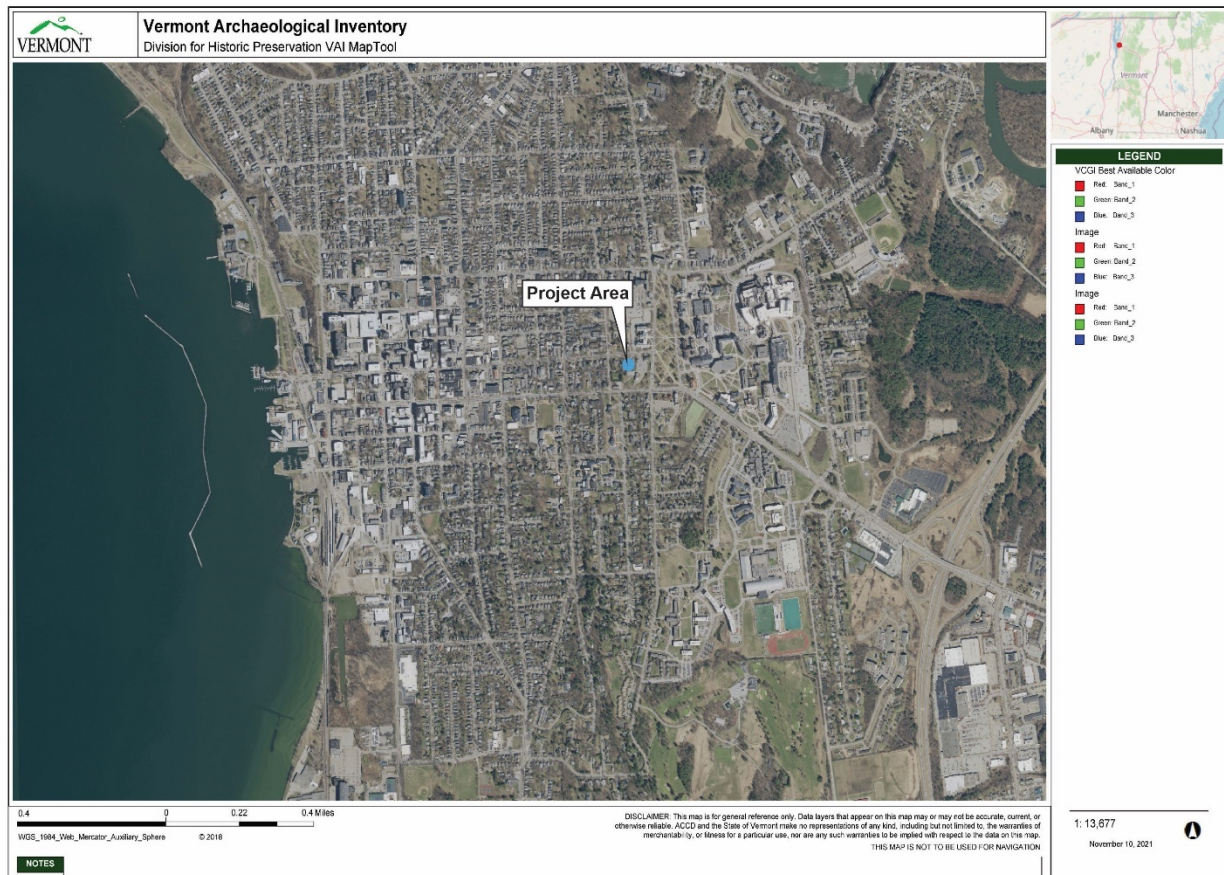


Figure 1. Map showing the location of the Hillel Catch Basin Replacement Project, #439 College Street, City of Burlington, Chittenden County, Vermont (Vermont Agency of Commerce and Community Development, Online Resource Center: [www.https://orc.vermont.gov](https://orc.vermont.gov)).



Figure 2. Overview of the project area behind the Hillel Building at 439 College Street, looking west (2021).

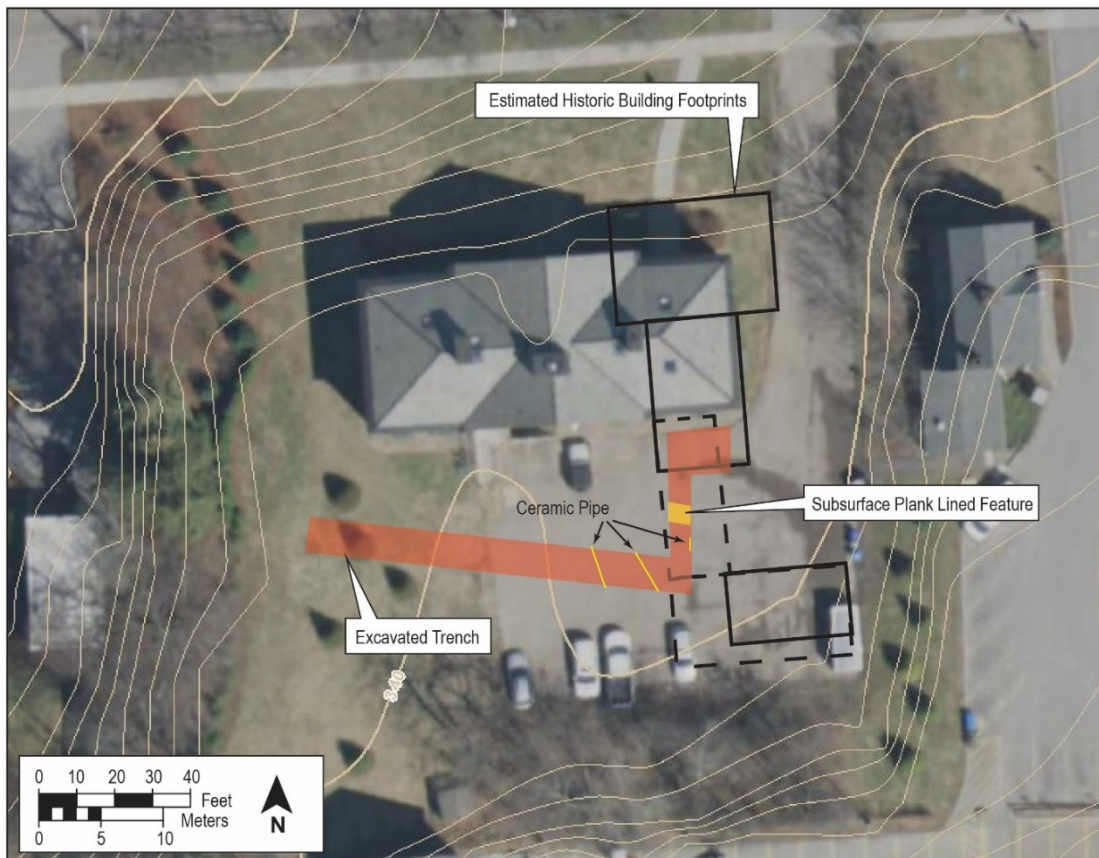


Figure 3. Site plan for the Hillel Catch Basin Replacement Project, #439 College Street, City of Burlington, Chittenden County, Vermont (Base Map: Vermont Center for Geographic Information, <https://vcgi.vermont.gov/>).

HISTORIC BACKGROUND

The property at #439 College Street now houses the University of Vermont's Hillel Center in a structure formerly known as the Phi Delta Theta House. However, prior to the construction of this existing building, this parcel once hosted an earlier structure. It appears that Samuel Hickok, then the owner of the land, permitted the Rev. Samuel Clark to build a house on the property in ca. 1811 (Figures 4-7)¹ (Burlington Town Land Records [BTLR] 4:239; *Burlington Weekly Free Press* May 18, 1893). The Rev. Samuel Clark (1792-1827), a native of Brookline, Massachusetts, was a Harvard graduate who presided over the First Unitarian Church in Burlington from 1810 to 1822 (Find-a-Grave, Gravestone, Elmwood Cemetery, Burlington, Vermont; Thompson 1842:84). Clark married Caroline Sanger (1783-1873) and they had several children including: two daughters, Rosmond and Ann who both died in 1814; as well as another daughter, Ann W. (ca 1818-1862) and a son, Herman, who survived him (*Burlington Free Press* March 8, 1873; *Burlington Weekly Sentinel* May 23, 1862; Find-a-Grave, Gravestone, Elmwood Cemetery, Burlington, Vermont). Clark eventually purchased the property on which his house stood in 1823 from Samuel Hickok (BTLR 7:291-292). When Samuel Clark died on May 2, 1827, at just 45 years of age, his "brick house, out houses & land on College Street" were valued at \$1,600 (*Vermont Statesman* May 16, 1827; *Vermont Wills and Probate Records 1749-1999* Estate of Samuel Clark of Burlington, ca. 1827). On October 15, 1844, Caroline Clark transferred her interest in the homestead, then bounded north by College Street; south and east by John Wheeler; and west by William Weston, on which she then lived, to her daughter, Ann W. Clark (BTLR 17:11). On March 29, 1845, John Wheeler bought the former Samuel Clark property from Ann Clark (BTLR 17:188).

John Wheeler sold most of this property (including the house), to his sister, Rebekah (Wheeler) Francis, on September 19, 1846 (Figures 8-13) (BTLR 18:234). Rebekah (Wheeler) Francis (1800-1876) was the widow of Gen. John Francis (1785-1843), who had been a "prominent citizen of Royalton" (Find-a-Grave, Gravestone, Lake View Cemetery, Burlington, Vermont; *St Albans Messenger* June 5, 1900; *Vermont Vital Records 1720-1908*). Upon the death of Rebekah W. Francis in 1876, her homestead on College Street passed to her three children: Rebecca Smith, Julia Hickok, and Lewis Francis. On February 7, 1884, they sold the old homestead to Florence Englesby for \$8,000 (Burlington City Land Records [BCLR] 20:200). Florence (Huse) Englesby (1856-1948) was the wife of Leverett F. Englesby Esq. (1854-1934) who was a son of Leverett B. (1827-1881) and his first wife, Amelia Englesby (Figure 14) (*Burlington Free Press* May 19, 1934).

Leverett F. Englesby was a lawyer who went bankrupt in 1903 (*Burlington Free Press* June 9, 1903). On February 1, 1903, Leverett F. and Florence Englesby sold the property at #439 College Street to the Phi Delta Theta fraternity (BCLR 49:374; *Burlington Free Press* February 20, 1903). The fraternity tore the old house down in 1921 and built the existing 'Phi Delta Theta House' on the site in ca. 1922-1923 (*Burlington Free Press* May 4, 1923). When the

¹ In 1818, Samuel Clark publicly tendered "his thanks to his neighbors and to the students of the University, for their exertions in preserving his house from fire" (*Vermont Centinel* May 29, 1818).

old building was torn down, the workmen found that the house had been remodeled several times. Reportedly, “three fireplaces in one have been unearthed by workmen who were razing the Phi Delta Theta fraternity house . . . first comes a marble fireplace, over which was one built



Figure 4. Detail of an early map of Burlington (Anonymous n.d.). This map gives a general idea of the local topography and early road development in the project area, in the early 1830s.

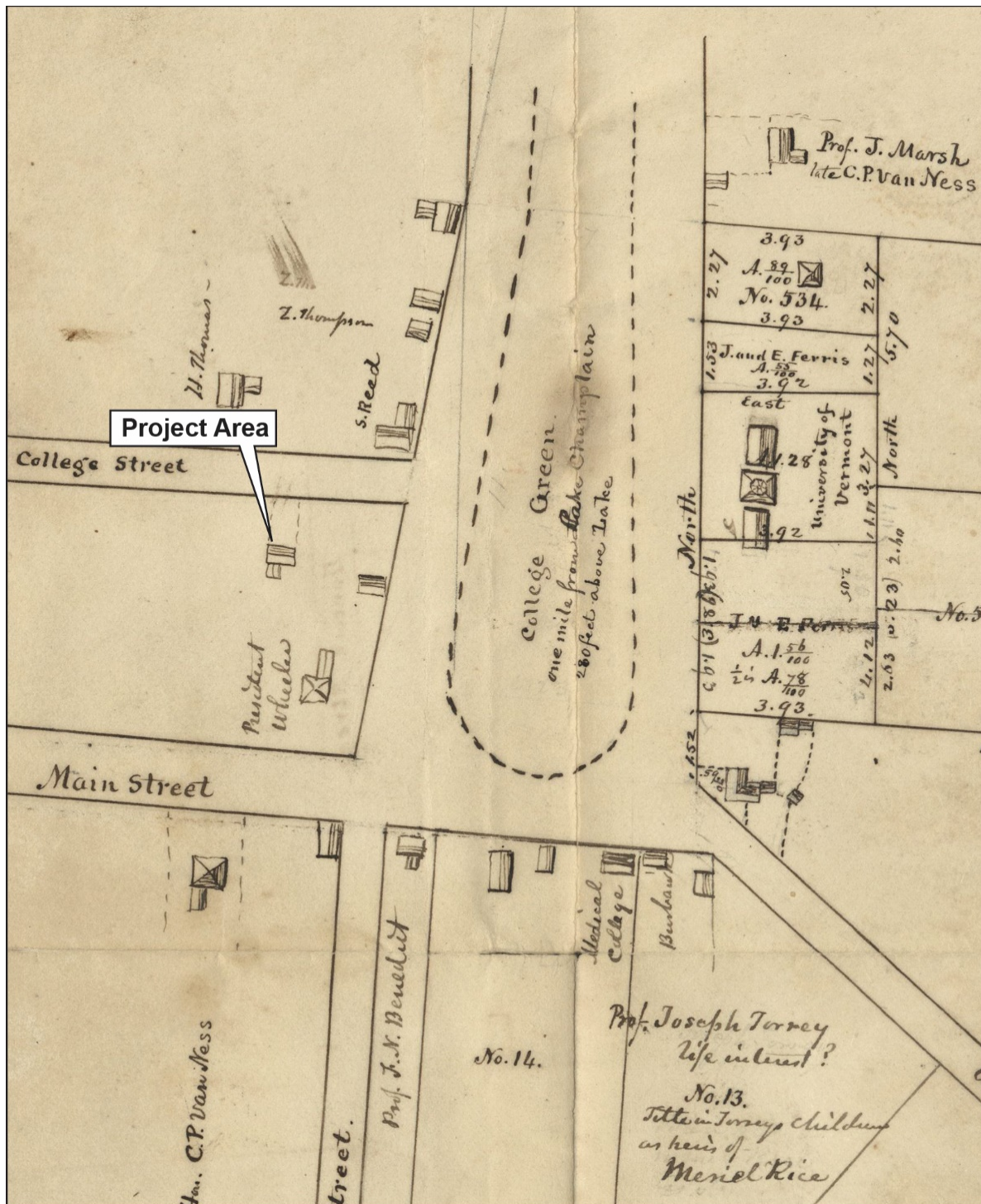


Figure 5. Detail of John Johnson's map *Burlington South of College Green* (Johnson n.d.).

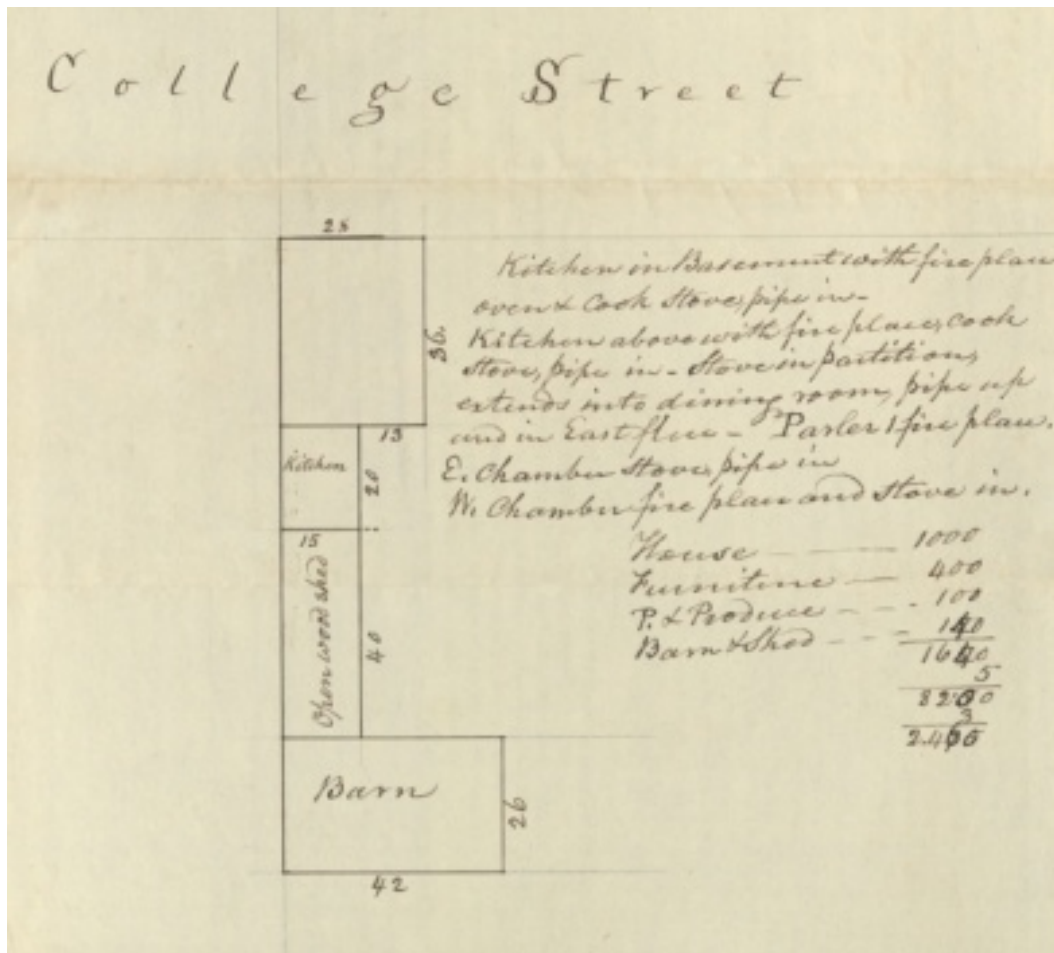


Figure 6. Undated survey by John Johnson entitled *Property of Caroline Clark, College Street, Burlington* (John Johnson Collection: Carton 6, Folder 40.)

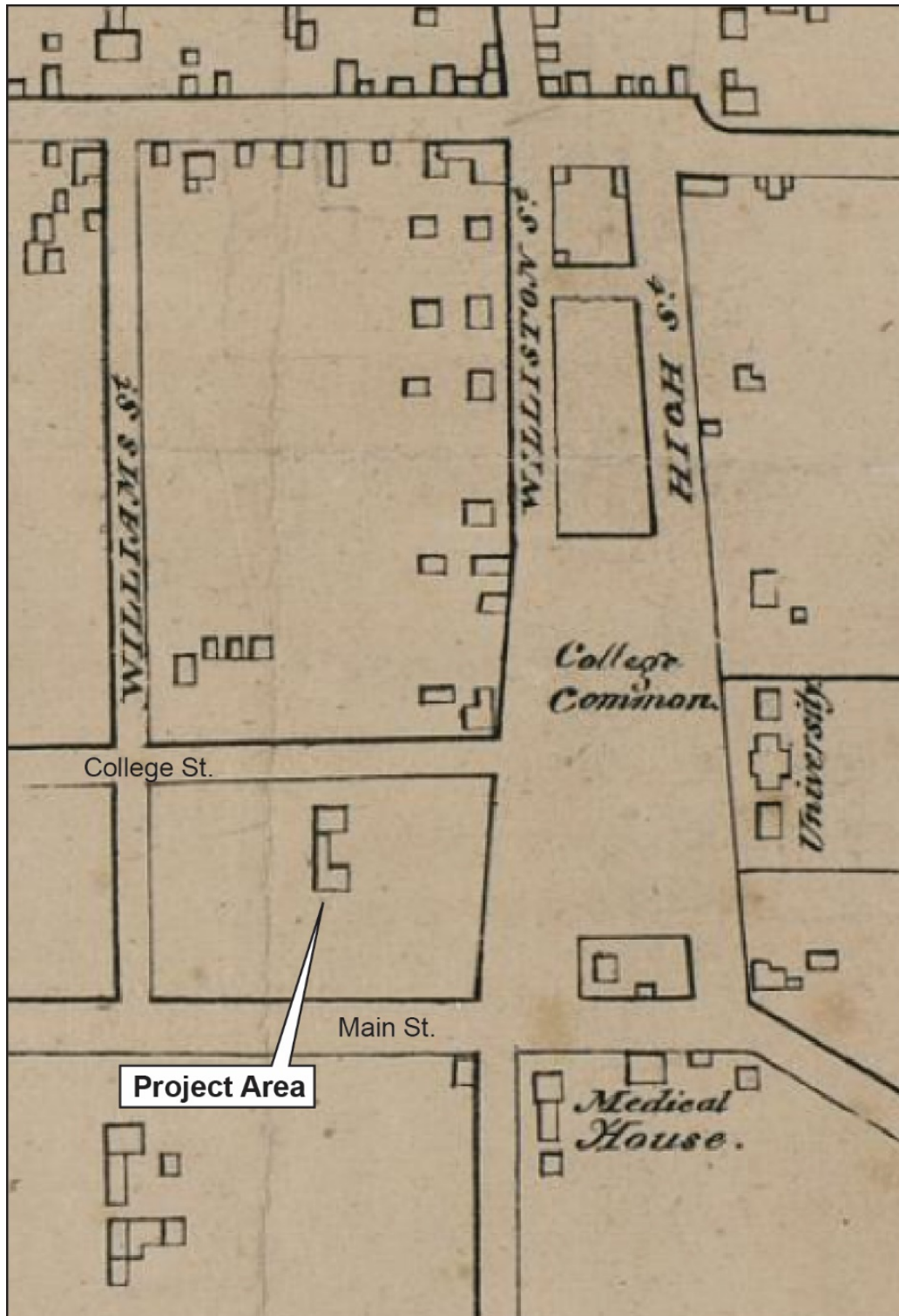


Figure 7. Detail of Ammi B. Young's *Plan of Burlington Village* (1830).

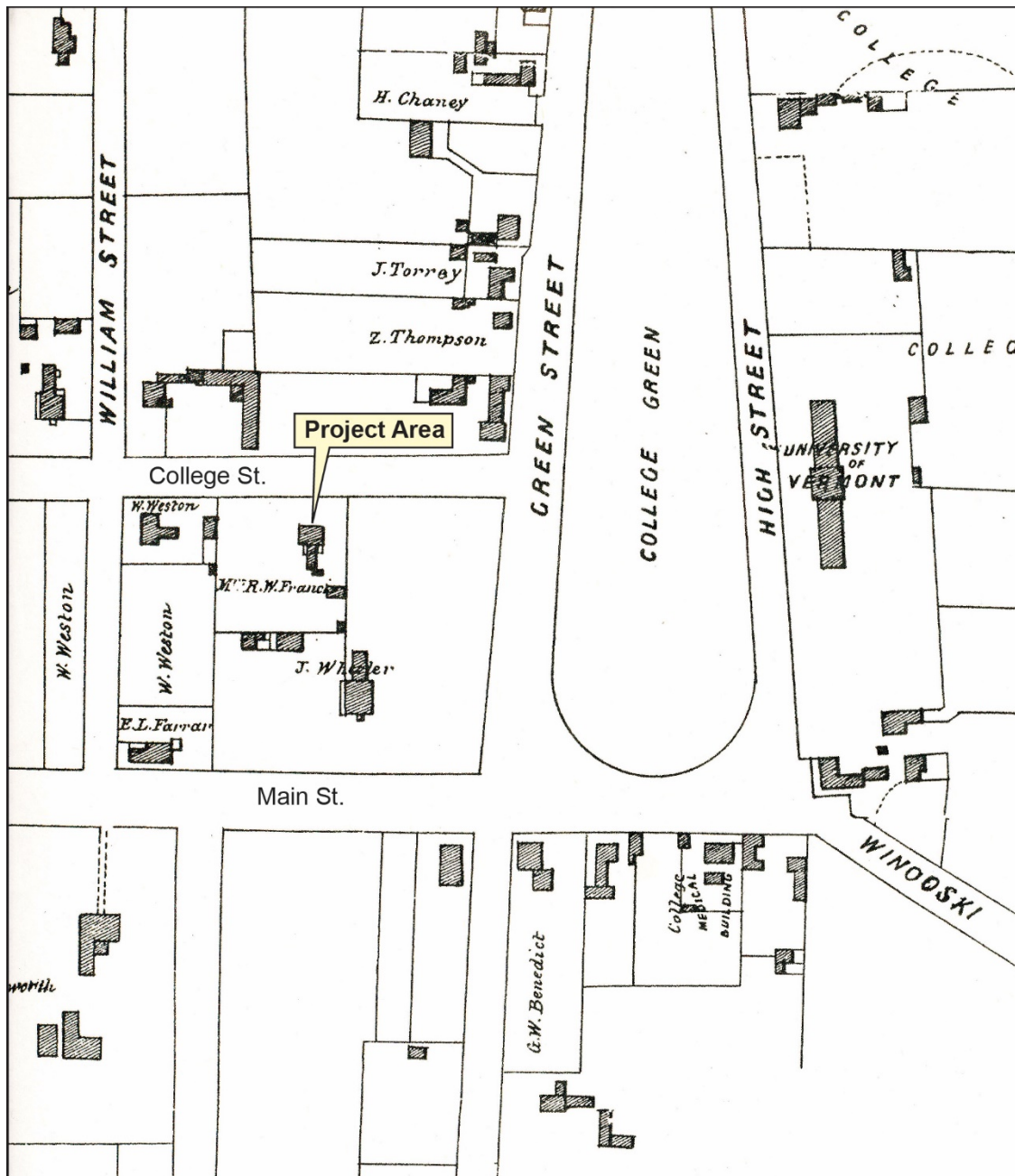


Figure 8. Detail of Presdee & Edwards' Map of Burlington, Vermont (1853).



Figure 9. View of the R.W. Francis house, looking southeast (Silver Special Collections, Billings Library Annex, University of Vermont, Burlington, Vermont).



Figure 10. Detail of a photograph taken looking west southwest from the Old Mill on the University of Vermont's campus ca. 1874-1881 (Hibbard and Larkin Co., Collection, Robert Hull Fleming Museum, University of Vermont, Burlington, Vermont / accessed at the Vermont Landscape Change Program website). The closest two buildings include the Wheeler House at left, and the R. W. Francis House at right.

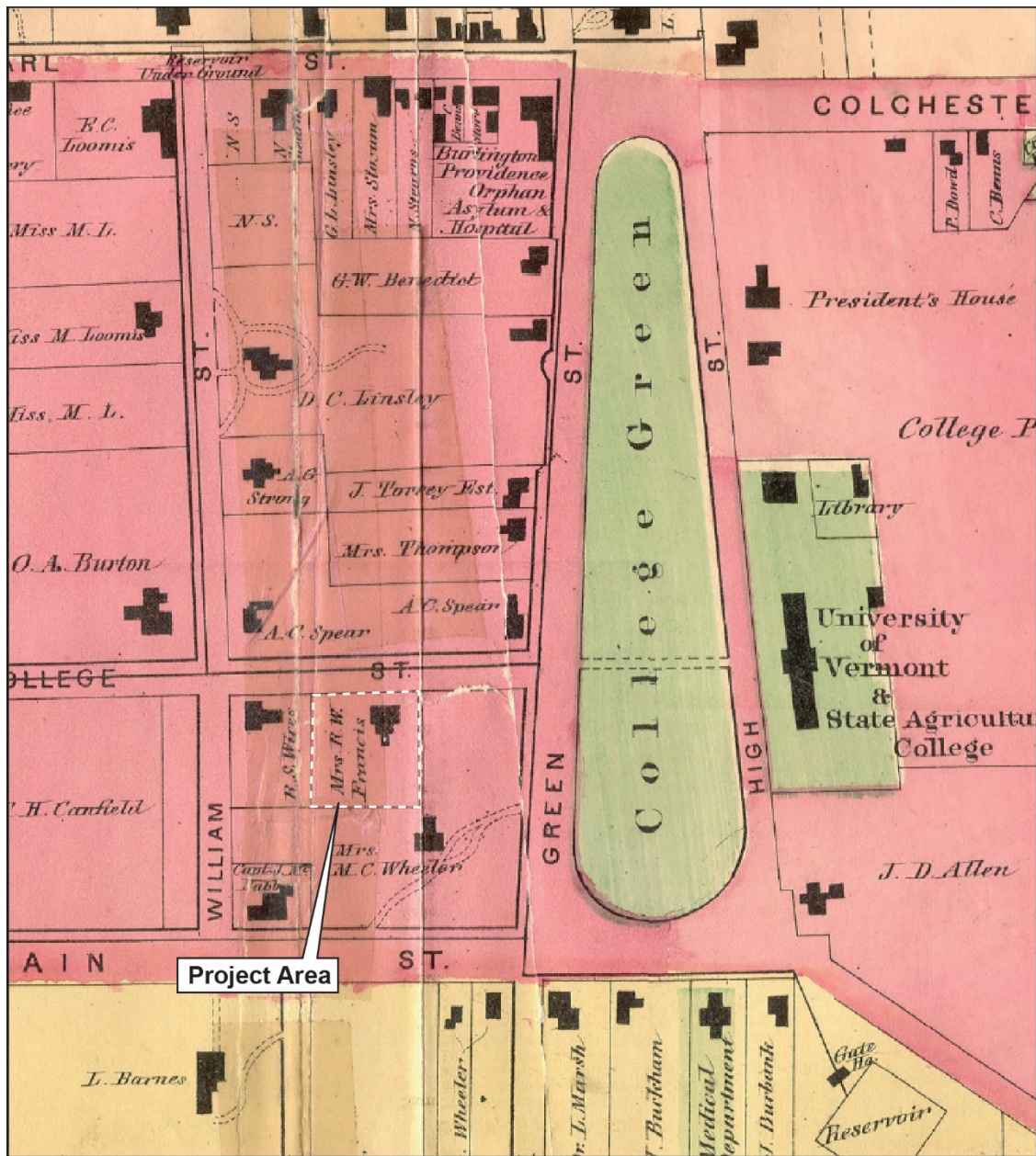


Figure 11. Detail of “Burlington” in F.W. Beers’ *Atlas of Chittenden County, Vermont* (1869). Note: this map records only residences and businesses and not barns or other outbuildings.

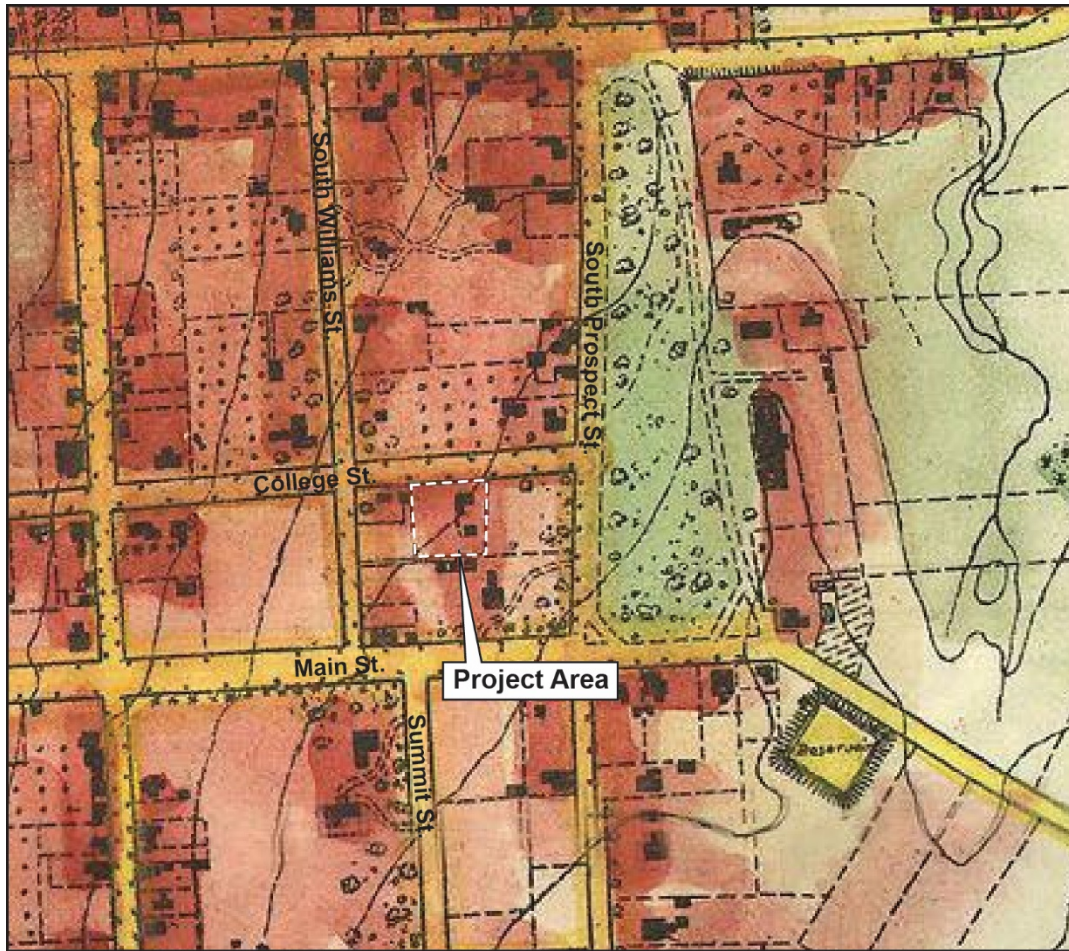


Figure 12. Detail of H.G. Ogden and F.D. Granger's *U.S. Coast Guard Survey, Burlington, Vermont* (1872). This map includes buildings, outbuildings, and prominent trees/vegetation.

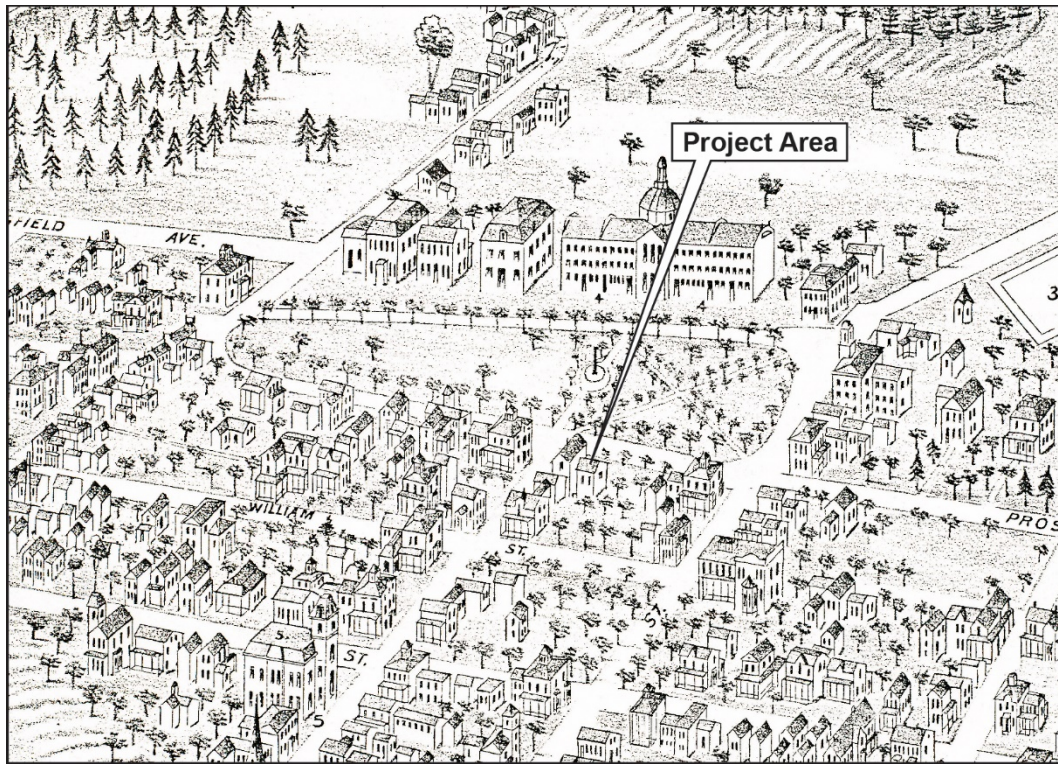


Figure 13. Detail of E. Meilbek's *Bird's Eye View of Burlington and Winooski, Vermont* (1877).

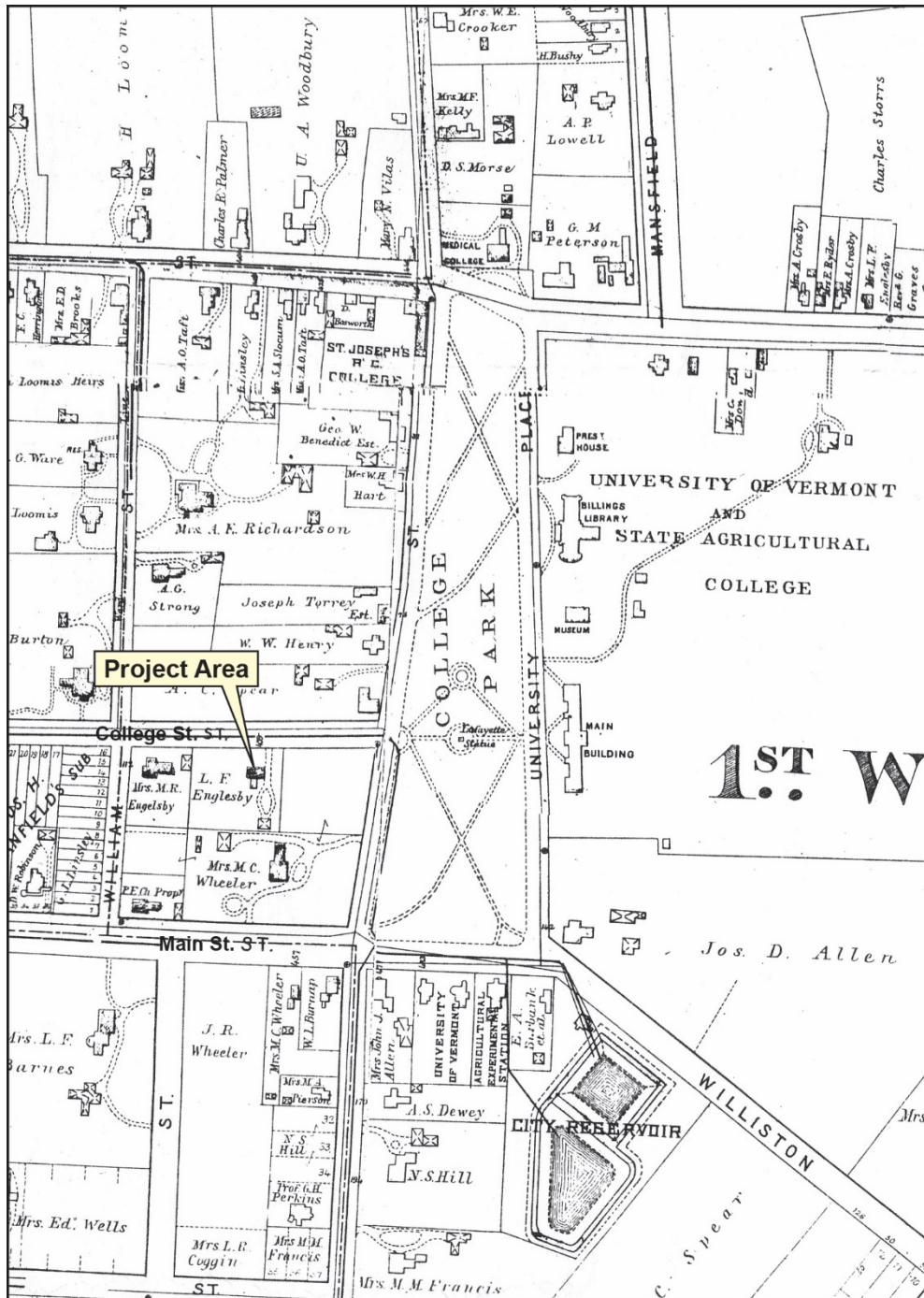


Figure 14. Detail of G.M. Hopkins' Map of the City of Burlington, Vermont (1890).

of slate, which, in turn was buried beneath a tile coating. The hearths correspond to the fireplaces, and the same chimney was used for all” (*Burlington Daily News* October 25, 1921). The workers also noted that “the purlings run the whole length of the building and the oak pins are as sound as the day they were put in” (*Burlington Daily News* October 25, 1921). Aerial photographs indicate that the east part of the parking area had been developed before 1937. On June 30, 2014, the Phi Delta Theta fraternity sold the property to the University of Vermont (BCLR 1252:42).

Although the old house was torn down in 1921 and replaced with the present structure, this parcel is still considered sensitive for early historic period archaeological resources. The better historic maps indicate that the site of the old house site is now partially under the eastern part of the existing structure, but some elements were believed to be potentially present to the south, within the area of the present parking area (Sanborn Mapping and Publishing Company 1906). In addition, a barn and outbuilding also once existed behind the house near the southeast corner of the parcel. Finally, other features such as well, cisterns also were potentially present.

RESULTS

On August 19, 20, 23, 24 and 25, 2021, an archaeologist with the University of Vermont Consulting Archaeology Program (UVM CAP) was on hand at #439 College Street, to record any artifacts or features of potential archaeological significance that may be encountered during the ground disturbances associated with the installation of the new catch basin system. This project involved about 45 m (147 ft 7.6 in) of trenching. Of this distance, about 30 m (98 ft 5 in) ran generally east-west and was about 2.71 m (8 ft 10.7 in) wide. The remaining 15 m (49 ft 2.5 in) ran north-south and was generally about 1.57 m (5 ft 1.8 in wide). The trench was approximately 2.3 m (7 ft 6.5 in) deep throughout its entire length (Figures 15-18).



Figure 15. General view of the western end of the project area (2021).



Figure 16. General view of the project area, looking northeast (2021).



Figure 17. General view of the eastern end of project area, looking northeast (2021).



Figure 18. General view of the trench excavation (western end), looking southeast (2021).

In the western end of project area there was substantial amount of overburden / landscaping fill (up to 80 cm or 2 ft 7.5 in) capping the old historic ground surface. The Apb, was underlain by intact weathered subsoil (Bs) (Figures 20-21). Although very low in density, this Apb had artifacts consistently dating to the early 1800s in it. Therefore, it is also possible that this property could retain some traces of precontact era Native American cultural deposits, if present. By about the middle of the building the Apb was only 30 cmbs (11.8 in) below the top of modern asphalt surface and its gravel underlayment a few meters east it was below 15-20 (5.9-7.9 in) of historic fill. Furthermore, in places (especially on the north side of the trench, this Apb was truncated and in many places was only 8-10 cm (3.1-3.9 in) thick. As the project continued to the east, the old ground surface pinches out completely. From here eastward, the old ground surface had been largely stripped away before the modern parking lot surface materials were added on top. The more diagnostic artifacts recovered from the Apb this horizon included a sherd of dark blue transfer printed pearlware (ca. 1815-1835) and one sherd of hand painted broad brush blue floral design pearlware (ca. 1815-1830) (Figure 22)² The new precast concrete catch basin was put in area closest to the projected rear of the historic house, however, this area was the most disturbed by the removal of the old ground surface that occurred when the new building was built and/or later on when the parking lot and catch basin were installed (Figure 23-24).

² Found out of context, but most likely associated with the historic occupation of the site was one sherd of Canton Porcelain (ca. 1790-1835).



Figure 19. View of a representative profile at the western end of trench showing a substantial series of fills on top of the original historic ground surface or Apb (the lowest very dark grayish brown to black layer in this section).



Figure 20. View of the south wall of the trench just east of Figure 19 showing the lessening of the amount of fill going eastwards and a piece of pearlware *in situ* within the Apb, looking south (2021).



Figure 21. Close up view of *in situ* sherd of pearlware with dark blue transfer print, looking south (2021).



Figure 22. View of the north wall of the trench showing a piece of hand painted broad brush pearlware within in the truncated Apb on this side of the trench near center of image, looking north (2021).



Figure 23. View of the south wall of trench looking east southeast (2021). Note the lessening amount of fill overlying the Apb (the dark band about 50-60 cm below the modern ground surface).



Figure 24. View of the south wall of trench showing the “pinch out” of the historic ground surface, about midway along this section of the trench, looking east southeast (2021). This area and the area continuing to the east had been apparently stripped and leveled prior to the addition of the parking lot.

During the excavations, three lines of 6 in (15.2 cm) diameter ceramic wastewater pipes were also encountered (Figure 25). Broadly speaking machine manufactured slip glazed clay pipe (aka tile) tile dates to ca. 1840s-ca. 1945 (Kidder 1889; Klinefelter and Hamiln 1957:38). Specifically, one line crossed the east-west orientated part of the excavated trench at a little off perpendicular about 8.9 m (29 ft 2.4 in) east of edge of pavement; another was 13 m (42 ft 7.8 in) from edge of existing parking area, and the last ceramic pipe was noted running north-south in the east side of the trench at 10.5 to 11.2 m (34 ft 5.4 in to 36 ft 9 in) from the back of the existing building. The slip glazed pipe was “made of what is known as ‘fire clay’ which retains its porosity when subjected to the most intense heat” (e.g., clays that would not vitrify) and is glazed “with another kind of clay known as slip” (aka. Albany-slip / Brown-earth slip) with a complete coating inside and out (Kidder 1889).



Figure 25. View of the north wall of the trench showing a ceramic wastewater pipe at right center of image, looking north (2021).

In addition to the ceramic wastewater pipes, there was also one subsurface plank lined structure that was cut through by the trench being excavated (Figures 26-29). This feature was located between 9.02 and 7.88 m (29 ft 7.1 in and 25 ft 10.2 in) south from the south wall of the existing building in the section of the trench running north to south and about 5.34 m (17 ft 6.2 in) west of the southeast corner of the existing building. This feature was embedded in a clayey fill with the top of its floor at 70 cm (2ft 3.6 in) below the modern ground surface. This feature measured 1.17 m (3 ft 10 in) across. The planks used in its construction were about 2 cm (0.79 in) thick and up to 30-35 cm (11.8 to 13.8 in) wide. About 30 cm (11.8 in) of this structure (extending up from the floor) was intact, the top of this structure appears to have been disturbed by the construction of the parking lot. The disturbed soil/trench back fill ranged from 5 to 8 cm (2 to 3.14 in) below the floor of the box. This feature only extended part way across the trench being excavated going east. It appears that this feature may either end at the edge of the recent trench and/or had been previously disturbed by the installation of ceramic pipe on its east side. The wooden plank feature does not appear in the east wall of the present trench. Unfortunately, no artifacts, not even nails, were seen in direct association with this feature, and it is unclear as to the date of its construction and/or its intended purpose. To the east of the plank lined feature there was a distinct area of rubble (structural demolition) fill just below the modern parking lot material (Figure 30). This could be associated with the razing of the old house ca. 1921.



Figure 26. View of the location of the wooden plank lined subsurface feature, looking southwest (2021) (see the middle of trench directly above the ladder's shadow).



Figure 27. Oblique view of the wooden plank lined subsurface feature encountered during this project on the west side of the excavated trench, looking southwest (2021). The north arrow is sitting on the wood planks still in place at the bottom of the feature.



Figure 28. View of the wooden plank lined subsurface feature encountered during this project in profile on the west side of the excavated trench, looking northwest (2021).



Figure 29. View of the wooden plank lined subsurface feature encountered during this project in profile on the west side of the excavated trench, looking west (2021).



Figure 30. View of the east wall of the excavated trench just south of the precast concrete catch basin to be replaced, looking east 2021. Note: the structural destruction layer just below the modern parking lot materials.

CONCLUSIONS

The results of the archaeological monitoring conducted as part of the Archaeological Resources Assessment for the 439 College Street Catch Basin Replacement Project demonstrate that some areas of intact / relatively undisturbed historic context and potentially some intact PreContact Native American cultural resources exist within the west half of the parking area and beyond within the parcel. The information that the east part of the parking area was stripped of topsoil at some point in the past removes this, “uphill” portion of the parcel from future consideration given that any once present archaeological deposits likely were removed during driveway and parking lot construction. Artifacts related to first half of the nineteenth century were recovered though in low density within the project area. In terms of features, historic wastewater pipes and pipe trenches were noted, as well as the disturbances related to more recent drainage work. One unidentified wooden plank feature was identified and photodocumented. While the function of this structure is unknown based on a lack of associated artifacts, the structure may relate to one or another sheds or outbuildings once on the property.

Based on the monitoring of the trench excavation and the background research conducted as part of this ARA, no further work was determined to be necessary prior to the completion of the catch basin project. As documented in the trench profiles, while the landscape on this lot has been extensively modified, and stripped of topsoil on the eastern side, there still exists the potential for intact historic features (e.g., cisterns, well, privy, trash pits &etc.) and/or precontact era Native American cultural resources elsewhere on the lot. We recommend therefore that future ground-disturbing activities on the property also be reviewed for their potential impacts to archaeological resources.

REFERENCES CITED

Anonymous

n.d. *Map of Burlington, Vermont*. Map on file: Fletcher Free Library, Burlington, Vermont.

Beers, F.W.

1869 Plan of the City of Burlington. In: *The Atlas of Chittenden County, Vermont*. F.W. Beers, New York, New York.

Burlington (City of) Land Records

Various years. Burlington City Land Records [BCLR]. Manuscript on file: Burlington City Clerk's Office, Burlington, Vermont.

Burlington Daily News (Burlington, Vermont)

1921 October 25, "Century-Old Relics Are Found in House At 439 College St." p. 2.

Burlington Free Press (Burlington, Vermont)

1873 March 8, "Died: Foote." p. 2.

1903 February 20, "Fraternity Purchases Home." p. 5.

1903 June 9, "A Voluntary Bankrupt." p. 5.

1923 May 4, "Phi Delt's New Home." p. 7.

Burlington Weekly Free Press (Burlington Vermont)

1893 May 18, "The College Park." [Re-printed from the *Vermont Cynic*] p. 8.

Burlington Weekly Sentinel (Burlington Vermont)

1862 May 23, "Died" [Ann W. Clark]. p. 3.

Burlington (Town of) Land Records

Various years. Burlington Town Land Records [BTLR]. Manuscript on file: Burlington City Clerk's Office, Burlington, Vermont.

Hopkins, G.M.

1890 *Map of the City of Burlington, Vermont*. G.M. Hopkins, Philadelphia, Pennsylvania.

Johnson, John

n.d. *Burlington South of College Green*. Manuscript on file: John Johnson Collection, Oversized Maps Folder 1: Map 25. Silver Special Collections, Billings Library Annex, University of Vermont, Burlington, Vermont.

n.d. *Property of Caroline Clark, College Street, Burlington* Manuscript on file: John Johnson Collection: Carton 6, Folder 40. Silver Special Collections, Billings Library Annex, University of Vermont, Burlington, Vermont.

Kenny, Kathleen and John G. Crock

2020 *Archaeological Resources Assessment University of Vermont Main Campus, City of Burlington, Chittenden County, Vermont*. University of Vermont Consulting Archaeology Program 1235.

Kidder, Frank Eugene

1889 *The Architect's and Builder's Pocket Book* 6th ed John Wiley & Sons New York, New York.

Klinefelter T.A. and H.P. Hamlin

1957 "Syllabus of Clay Testing." Bulletin #565, Bureau of Mines. United States Government Printing Office, Washington D.C.

Meilbeck, E.

1877 *Bird's Eye View of Burlington and Winooski, Vermont*. J. J. Stoner, Madison, Wisconsin.

Ogden, H.G. and F.D. Granger

1872 *U.S. Coast Guard Survey, Burlington, Vermont*. Silver Special Collections, Billings Library Annex, University of Vermont, Burlington, Vermont.

Presdee and Edwards

1853 *Map of Burlington, Vermont*. Presdee & Edwards, New York, New York.

Sanborn Mapping and Publishing Company

1906 *Fire Insurance Map, Burlington, Vermont*. Sanborn Mapping & Publishing Company, New York. Ms. on File: Silver Special Collections, Billings Library Annex, University of Vermont, Burlington, Vermont.

St. Albans Messenger (St. Albans, Vermont)

1900 June 5, "Recent Deaths: Mrs. Julia F. Hickok." p. 7.

Vermont Statesman (Castleton, Vermont)

1827 May 16, "Died" [Rev. Samuel Clark] p. 3.

Vermont Vital Records 1720-1908.

Various years. *Vermont Vital Records 1720-1908*. Database on-line. Ancestry.com Operations Inc., Provo, Utah. *Ancestry.com*. [www.http://ancestry.com](http://ancestry.com) : 2011. From Microfilmed original documents of the Vermont Secretary of State, Montpelier, Vermont.

Vermont Wills and Probate Records

ca. 1826. Estate of Samuel Clark of Burlington, Estate File: Box 6, Files #705-713 in *Vermont Wills and Probate Records*. Accessed online. Database and Digital Images. "Vermont Wills and Probate Records 1749-1999" Ancestry.com Operations Inc. Provo, Utah. *Ancestry.com*. [www.http://ancestry.com](http://ancestry.com): 2011. Original Data Chittenden County Probate Court, as preserved by the Vermont Secretary of State, Montpelier, Vermont.

Walling, H.F.

1857 *Map of Chittenden County, Vermont*. Baker & Tilden & Co., New York, New York.

Vermont Centinel (Burlington, Vermont)

1818 May 29, "Saml. Clark . . ." p. 3.

Young, Ammi B.

1830 *Plan of Burlington Village*. Pendleton, New York, New York.

E-Notification CERTIFICATE OF SERVICE Regarding Information for LUP# 4C0571-8,
For UVM 439 College Street, November 11, 2021

I hereby certify that I, Lani Ravin, Associate Planner at the University of Vermont & State Agricultural College, sent a copy of documents, dated November 11, 2021, for the University of Vermont, regarding LUP# 4C0571-8, regarding installation of new stormwater infrastructure at 439 College Street, by electronic mail to those with email addresses as indicated:

District #4 Environmental Commission

111 West Street

Essex Junction, VT 05452

NRB.Act250Essex@vermont.gov

Rachel.Lomonaco@vermont.gov

University of Vermont & State Agricultural College

c/o Lani Ravin, AICP, Associate Planner

Lisa Kingsbury, Associate Director

Planning, Design & Construction

16 Colchester Avenue

Burlington, VT 05405

Lani.ravin@uvm.edu;

Lisa.kingsbury@uvm.edu;

Burlington City Clerk

Chair, Selectboard/Chair, Planning Commission

City of Burlington

149 Church Street

Burlington VT 05401

burlingtontownclerk@burlingtonvt.gov;

lolberg@burlingtonvt.gov;

abovee@burlingtonvt.gov;

mtracy@burlingtonvt.gov;

amontroll@burlingtonvt.gov

Chittenden County Regional Planning Commission

110 West Canal Street, Suite 202

Winooski VT 05404

Permitting@ccrpcvt.org

Elizabeth Lord, Land Use Attorney

Agency of Natural Resources

1 National Life Drive, Davis 2

Montpelier, VT 05602-3901

Anr.act250@vermont.gov

Dept. of Public Service

112 State Street, Drawer 20

Montpelier, VT 05620-2601

barry.murphy@vermont.gov;

PSD.VTDPS@vermont.gov;

VTrans Policy, Planning & Research Bureau

Barre City Place

219 N. Main Street

Barre, VT 05641

AOT.Act250@vermont.gov;

Agency of Agriculture, Food & Markets

116 State Street, Drawer 20

Montpelier, VT 05620-2901

AGR.Act250@vermont.gov;

Division for Historic Preservation

National Life Building, Drawer 20

Montpelier, VT 05620

scott.dillon@vermont.gov;

james.duggan@vermont.gov;

ACCD.ProjectReview@vermont.gov;

Dated at Burlington, Vermont, November 11,
2021

Lani Ravin, AICP

Lani Ravin, AICP, Associate Planner

Planning, Design & Construction

University of Vermont & State Agricultural

College

UVM Parking Lot Capacities and Empty Space Count				
PEAK DEMAND LOT COUNTS - November 2021				
Location	Usable Spaces	Occupied Spaces	Empty Spaces	Percent Full
Athletic Commuter	1,704	1,406	298	82.5%
Core Central	61	43	18	70.5%
Core East	710	632	78	89.0%
Core North	369	256	113	69.4%
Core South	193	101	92	52.3%
Core West	387	237	150	61.2%
Commuter Lots	323	233	90	72.1%
Redstone	626	522	104	83.4%
Trinity	314	255	59	81.2%
Total	4,687	3,685	1,002	78.6%
Counts done November 16th to November 18th				

E-Notification CERTIFICATE OF SERVICE Regarding Monthly Information for LUP# 4C1043-1A,
For UVM Firestone Building for November, 2021

I hereby certify that I, Lani Ravin, Associate Planner at the University of Vermont & State Agricultural College, sent a copy of documents, dated November 22, 2021, for the University of Vermont, regarding LUP# 4C1043-1A, regarding temporary suspension of a 200 space off-campus parking lot, by electronic mail to those with email addresses as indicated:

District #4 Environmental Commission

111 West Street

Essex Junction, VT 05452

NRB.Act250Essex@vermont.gov

Rachel.Lomonaco@vermont.gov

University of Vermont & State Agricultural
College

c/o Lani Ravin, AICP, Associate Planner

Lisa Kingsbury, Associate Director

Planning, Design & Construction

16 Colchester Avenue

Burlington, VT 05405

Lani.ravin@uvm.edu; Lisa.mcnaney@uvm.edu;

Lisa.kingsbury@uvm.edu;

Burlington City Clerk

Chair, Selectboard/Chair, Planning Commission

City of Burlington

149 Church Street

Burlington VT 05401

burlingtontownclerk@burlingtonvt.gov;

lolberg@burlingtonvt.gov;

abovee@burlingtonvt.gov;

mtracy@burlingtonvt.gov;

amontroll@burlingtonvt.gov

Chittenden County Regional Planning
Commission

110 West Canal Street, Suite 202

Winooski VT 05404

Permitting@ccrpcvt.org

Agency of Natural Resources

1 National Life Drive, Davis 2

Montpelier, VT 05602-3901

Anr.act250@vermont.gov

Dept. of Public Service

112 State Street, Drawer 20

Montpelier, VT 05620-2601

barry.murphy@vermont.gov;

PSD.VTDPS@vermont.gov;

VTrans Policy, Planning & Research Bureau

Barre City Place

219 N. Main Street

Barre, VT 05641

AOT.Act250@vermont.gov;

Agency of Agriculture, Food & Markets

116 State Street, Drawer 20

Montpelier, VT 05620-2901

AGR.Act250@vermont.gov;

Division for Historic Preservation

National Life Building, Drawer 20

Montpelier, VT 05620

scott.dillon@vermont.gov;

james.duggan@vermont.gov;

ACCD.ProjectReview@vermont.gov;

Dated at Burlington, Vermont, November 22,
2021

Lani Ravin, AICP

Lani Ravin, AICP, Associate Planner

Planning, Design & Construction

University of Vermont & State Agricultural

College

**Natural Resources Board
111 West Street
Essex Jct., VT 05452**

**Act 250 Jurisdictional Opinion
#4-296A**

This is a Jurisdictional Opinion based upon available information and a written request from the Landowner/Agent or Other Person. Any Notified Person or entity will be bound by this opinion unless that person or entity files a request for reconsideration with the District Coordinator (10 V.S.A. § 6007 (c) and Act 250 Rule 3 (b)) or an Appeal with the SUPERIOR COURT, Environmental Division within 30 days of the issuance of this opinion

☒ I hereby request a jurisdictional opinion from the District Coordinator or Assistant District Coordinator regarding the jurisdiction of 10 V.S.A. Chapter 151 (Act 250) over the project described below: Lani Ravin, UVM, Campus Planning Services

PROJECT DESCRIPTION:

The project includes repairs to University of Vermont ("UVM") Given Hall located at 106 Carrigan Drive in Burlington, Vermont. Given Hall was originally constructed in 1963 but is not listed on the National Register for Historic Places. The proposed project includes improvements to the pedestrian plaza at the southwestern entrance to Given Hall including the repair of existing support columns, resurfacing the plaza, new paving, lighting improvements and landscaping improvements. The project includes ground disturbance and requires coverage under an Individual Construction Stormwater permit.

Existing Act 250 permit: Given Hall was included as involved land under Permit 4C0506-11 for the UVMHC (Fletcher Allen Health Care) Renaissance Project

Project Type: ☒ Commercial ☐ Residential ☐ Municipal/State ☐ Mixed
 ☐ Agriculture ☐ Silviculture ☐ Other
Has the landowner subdivided before? ☐ Yes ☐ No ☒ N/A

AN ACT 250 PERMIT IS REQUIRED: ☒ **YES** ☐ **NO**

BASIS FOR DECISION:

In a letter dated April 22, 2021, the Vermont Division for Historic Preservation ("VDHP") determined that the work related to the repair of existing support columns will have no adverse effect on historic sites and does not require any further mitigation. The repair of the Given columns alone, as proposed and provided that the work is completed in accordance with the VDHP letter, does not constitute a material change pursuant to Act 250 Rule 2(C)(6) and does not require a permit amendment.

However, based on the available information, the remainder of the project constitutes a material change pursuant to Act 250 Rule 2(C)(6) and requires a permit amendment. This work is currently being reviewed under application #4C0451-4.

This opinion supersedes JO 4-296 issued on June 9, 2021.

SIGNATURE: /s/ Rachel Lomonaco DATE: 12/9/21

Rachel Lomonaco, District Coordinator
Environmental Commission District #4
111 West Street, Essex Junction, VT 05452
802-879-5658
rachel.lomonaco@vermont.gov

This is a jurisdictional opinion issued pursuant to 10 V.S.A. § 6007(c) and Act 250 Rule 3(B). Reconsideration requests are governed by Act 250 Rule 3(B) and should be directed to the district coordinator at the above address. As of May 31, 2016, with the passage of Act 150, Act 250 Rule 3(C) (Reconsideration by the Board) is no longer in effect. Instead, any appeal of this decision must be filed with the Superior Court, Environmental Division (32 Cherry Street, 2nd Floor, Ste. 303, Burlington, VT 05401) within 30 days of the date the decision was issued, pursuant to 10 V.S.A. Chapter 220. The Notice of Appeal must comply with the Vermont Rules for Environmental Court Proceedings (VRECP). The appellant must file with the Notice of Appeal the entry fee required by 32 V.S.A. § 1431 which is \$295.00. The appellant also must serve a copy of the Notice of Appeal on the Natural Resources Board, 10 Baldwin Street, Montpelier, VT 05633-3201, and on other parties in accordance with Rule 5(b)(4)(B) of the Vermont Rules for Environmental Court Proceedings.

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CERTIFICATE OF SERVICE

I hereby certify on this 9th day of December, 2021, a copy of the foregoing ACT 250 JURISDICTIONAL OPINION #4-296A, was sent by U.S. mail, postage prepaid to the following individuals without email addresses and by email to the individuals with email addresses listed.

Note: any recipient may change its preferred method of receiving notices and other documents by contacting the District Office staff at the mailing address or email below. If you have elected to receive notices and other documents by email, it is your responsibility to notify our office of any email address changes. All email replies should be sent to NRB.Act250Essex@vermont.gov

University of Vermont
c/o Lani Ravin
16 Colchester Avenue
Burlington, VT 05405
Lani.ravin@uvm.edu

Dated at Essex Junction, Vermont, this 9th day of December, 2021.

Katherine Schadt, Town Clerk
Chair, City Council/Chair, City Planning Commission
City of Burlington
149 Church Street
Burlington, VT 05401
burlingtontownclerk@burlingtonvt.gov
lolberg@burlingtonvt.gov

/s/Christine Commo
Christine Commo
Natural Resources Board Technician
802-879-5614
christine.commo@vermont.gov

Y:\NRB\Essex\DISTRICTS\DIST4\JO\JO 4-201 to JO 4-300\JO-4-296A\JO 4-296A cos.docx

Chittenden County Regional Planning Commission
110 West Canal Street, Suite 202
Winooski, VT 05404
permitting@ccrpcvt.org

Agency of Natural Resources
1 National Life Drive, Davis 2
Montpelier, VT 05602-3901
ANR.Act250@vermont.gov

Dept. of Public Service
112 State Street, Drawer 20
Montpelier, VT 05620-2601
PSD.VTDPS@vermont.gov

VTrans Policy, Planning & Research Bureau
Barre City Place
219 N. Main Street
Barre, VT 05641
AOT.Act250@vermont.gov

Agency of Agriculture, Food & Markets
116 State Street, Drawer 20
Montpelier, VT 05620-2901
AGR.Act250@vermont.gov

Division for Historic Preservation
National Life Building, Drawer 20
Montpelier, VT 05620
ACCD.ProjectReview@vermont.gov

FOR YOUR INFORMATION

District #4 Environmental Commission
111 West Street
Essex Junction, VT 05452

Natural Resources Board
Don Rendall, Interim Chair
Greg Boulbol, General Counsel
Alison Stone, Associate General Counsel
10 Baldwin Street
Montpelier, VT 05633-3201

ADVANCE NOTICE

RE: 60-day pre-filing notice of intent to file application to the Vermont Public Utility Commission for Certificate of Public Good Under Title 30 Chapter 5, Section 248a

Wireless Facility Modification regarding the facility at 285 Intervale Road, Burlington, VT

To Whom It May Concern:

This firm, in conjunction with local counsel David L. Grayck, Esq., represents T-Mobile Northeast, LLC (“T-Mobile”) regarding the intent of T-Mobile to submit an application to the Vermont Public Utility Commission (“the PUC”) pursuant to 30 V.S.A. §248a and the PUC’s Sixth Amended Order¹ seeking approval for modification of a personal wireless service facility (“the Project”), at 285 Intervale Road, Burlington, Vermont (“the Property”).

Under the relevant portions of Act 248a, and the Sixth Amended Order, the Project is defined as “a project of limited size and scope” (“LSS”)². The LSS process requires an applicant to provide written notice to specified parties, at least 60 days in advance of filing a Section 248a application, which notice must contain meet certain notice and filing requirements. Only after that 60-day notice provision is observed, may an applicant file the actual application with the PUC. You are receiving this letter as you are such a party entitled to advanced notice.

Enclosed with this Advanced Notice is a set of site plans and a description of the Project.

Section 248a requires T-Mobile to provide written notice to you at least 60 days in advance of filing an application for a Certificate of Public Good. When that application is submitted to the PUC, any comments, motions to intervene, or requests for hearing regarding the Project must be filed with the PUC within the thirty (30) comment period commencing once the application is filed with the PUC. This notice is being given to you pursuant to the Sixth Amended Order; the said Amended Order is available at the PUC’s office or the website of the PUC at: <https://puc.vermont.gov/section-248a-standards-and-procedures-re-telecommunications-facilities>.

In accordance with the Sixth Amended Order, attached to this notice is a statement which itemizes the rights and opportunities available to the legislative body and planning commission of each municipality under Section 248-a(c)(2), (e)(2), (m), (n), (o) and (p).

You will be notified when the application is filed with the Vermont PUC, which will be at least 60 days and no longer than 180 days from the date of this advance notice. During this

¹ Sixth Amended Order Implementing Standards and Procedures for Issuance of a Certificate of Public Good for a Communication Facility Pursuant to 30 VSA § 248a Entered September 21, 2018 (“the Sixth Amended Order”).

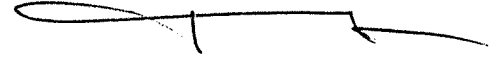
² T-Mobile believes that the Project is also regulated by Section 6409 of the Federal Spectrum Act (47 U.S.C. Sect. 1455(a)), which governs certain “eligible facilities” as that term is defined by federal law and regulations. T-Mobile does not waive any rights it has pursuant to Section 6409, but is submitting this Advanced Notice in compliance with Vermont law.

advance notice time frame, you may direct questions to undersigned counsel. Questions or comments regarding the proposed facility may be submitted to my attention at the address below. Thank you for your attention to this matter.

Respectfully submitted,

Dated: November 12, 2021

By:



Jonathan S. Springer, Esq.
Springer Law Office, PLLC
118 Maplewood Avenue, Suite C-3
Portsmouth, NH 03801
Tel (603) 319-8741
Email: jspringer@jspringerlaw.com

cc City of Burlington City Council
cc: City of Burlington Office of City Planning
cc: Chittenden County Regional Planning Commission
cc: Vermont Public Utility Commission (via ePUC)
cc: Vermont Agency for Natural Resources (via ePUC)
cc: Vermont Division for Historic Preservation (via ePUC)
cc: Vermont Dept of Public Service (via ePUC)
cc: Director of Public Advocacy of the Dept of Public Service (via ePUC)
cc: Vermont Agency of Transportation (via ePUC)
cc: Adjoining Property Owners, as shown on Exhibit 1
cc: T-Mobile Northeast, LLC
cc: Law Office of David L. Grayck, Esq.

Sixth Amended Order Statement

In accordance with the Sixth Amended Order, the following statement itemizes the rights and opportunities available to the legislative body and planning commission of each municipality under Section 248a(c)(2), (e)(2), (m), (n), (o) and (p).

248a(c)(2) Unless there is good cause to find otherwise, substantial deference has been given to the plans of the affected municipalities; to the recommendations of the municipal legislative bodies and the municipal planning commissions regarding the municipal plans; and to the recommendations of the regional planning commission concerning the regional plan. Nothing in this section or other provision of law shall prevent a municipal body from basing its recommendations to which substantial deference is required under this subdivision (2) on an ordinance adopted under 24 V.S.A. § 2291(19) or bylaw adopted under 24 V.S.A. Chapter 117 by the municipality in which the facility is located. A rebuttable presumption respecting compliance with the applicable plan shall be created by letter from an affected municipal legislative body or municipal planning commission concerning compliance with the municipal plan and by a letter from a regional planning commission concerning compliance with the regional plan.

248a(e)(2) On the request of the municipal legislative body or the planning commission, the applicant shall attend a public meeting with the municipal legislative body or planning commission, or both, within the 60-day notice period before filing an application for a certificate of public good. The Department of Public Service shall attend the public meeting on the request of the municipality. The Department shall consider the comments made and information obtained at the meeting in making recommendations to the Commission on the application and in determining whether to retain additional personnel under subsection (o) of this section.

248a (m) Municipal bodies; participation. The legislative body and the planning commission for the municipality in which a telecommunications facility is located shall have the right to appear and participate on any application under this section seeking a certificate of public good for the facility.

248a (n) Municipal recommendations. The Commission shall consider the comments and recommendations submitted by the municipal legislative body and planning commission. The Commission's decision to issue or deny a certificate of public good shall include a detailed written response to each recommendation of the municipal legislative body and planning commission.

248a (o) Retention; experts. The Department of Public Service may retain experts and other personnel as identified in Section 20 of this title to provide information essential to a full consideration of an application for a certificate of public good under this section. The Department may allocate the expenses incurred in retaining these personnel to the applicant in accordance with Section 21 of this title. The Department may commence retention of these personnel once the applicant has filed the 60-day notice under this subsection (e) of this section. A municipal legislative body or planning commission may request that the Department retain

these personnel. Granting such a request shall not oblige the Department or the personnel it retains to agree with the position of the municipality.

248a (p) Each legislative body and planning commission is hereby informed of the existence of the guide published under Section 248-a(p) available through the Vermont Department of Public Service, which may be obtained at the Department of Public Services' website, at: <https://publicservice.vermont.gov/content/public-guide-section-248a-process> . The purpose of the guide is to explain the process of reviewing telecommunication facilities under Section 248-a for use by local governments, regional planning commissions and members of the public who seek to participate in the process.

Exhibit 1

Independent Digital &
Wireless
288 South River Road
Bedford, NH 03110

Intervale Center, Inc.
City of Burlington
180 Intervale Road
Burlington, VT 05401

Green Mountain Power Corp.
c/o Burlington Electric
585 Pine Street
Burlington, VT 05401

Intervale Foundation Inc.
282 Intervale Road
Burlington, VT 05401

PROJECT NARRATIVE

T-Mobile Northeast, LLC (“TMO”) is proposing to add telecommunications antennas and equipment to an existing telecommunications facility consisting of an existing 100’ monopole tower at 285 Intervale Road, Burlington, Vt. Currently, TMO has no antennas mounted on the guyed tower.

TMO intends to make the following changes at the facility (collectively referred to below as the “Project”), as detailed on the enclosed Site Plans:

(a) Install nine (9) new antennas. Three (3) of the new antennas will measure approximately 33.1” x 20.6”; three (3) of the new antennas will measure approximately 81.1” x 14.7”; and, three (3) of the new antennas will measure approximately 96” x 24”. See Sheet C-5.1 on the submitted Site Plans. The centerline of the new antennas will be approximately 120’ above ground level (“AGL”). See Sheet C-3 on the submitted Site Plans.

(b) Install six (6) new reverse radio units (“RRUs”). Three (3) of the new RRUs will measure approximately 17.9” x 13.2” and three (3) of the new RRUs will measure approximately 17.0” x 15.1”. The proposed RRUs will not be visible as they will be located entirely behind the antennas and/or mount. See Sheet C-5.1 on the submitted Site Plans.

(c) The proposed visible facial surface area of the new antennas and equipment will be 87.1 sq. ft. See Sheet C-5.1 on the submitted Site Plans.

(d) Install ancillary improvements and appurtenances consisting of conduits and hardware necessary for the operation of the Facility.

(e) The proposed project will not involve clearing or excavations outside the current tower site. All of the proposed antennas and base equipment are on the tower or within the existing base compound. There will be no new impervious surface within the compound as shown by Sheet C-5.1 of the site plans.

Pursuant to 248a(e)(3), an applicant is required to provide a written assessment of the co-location requirements of subdivision (c)(3) of the statute, as those requirements pertain to the proposed telecommunications facility. In turn, the provisions of subsection (c)(3), require that if the proposed facility relates to the provision of wireless service, the applicant must show that the proposed facility reasonably cannot be co-located on or at an existing telecommunications facility, or such co-location would cause an undue adverse effect on aesthetics.

In this case, T-Mobile is not proposing a new facility, but is seeking to add antennas to an existing tower, in other words, T-Mobile is co-locating on an existing tower. The purpose of a co-location requirement is to avoid building new towers where a carrier can install its antennas on an existing tower. Here, T-Mobile meets that purpose as it is proposing to co-locate on an existing tower.

SITE CONFIG: RAN: 67D998C 6160
A&L: 67D998C_1QP+10P

PROJECT NOTES

GENERAL NOTES:

THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC, ROUTINE MAINTENANCE AND THEREFORE, DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE T-MOBILE NORTHEAST LLC REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SPECIAL STRUCTURAL NOTES:

TOWER OWNER SHALL PROVIDE GLOBAL STRUCTURAL STABILITY ANALYSIS OF EXISTING ANTENNA SUPPORT STRUCTURE. GENERAL CONTRACTOR SCOPE OF WORK SHALL INCLUDE ALL REQUIRED STRUCTURAL MODIFICATIONS, RE-BUNDLING OF COAXIAL CABLES OR OTHER SPECIAL MODIFICATIONS AS OUTLINED THEREIN.

ENGINEER OF RECORD HAS MADE A VISUAL ASSESSMENT ONLY AND HAS DETERMINED THAT THE EXISTING ANTENNA MOUNT SHALL BE REPLACED OR MODIFIED TO ACCOMMODATE ANY ADDITIONAL EQUIPMENT LOAD. STRUCTURAL DESIGNS AND DETAILS AS SHOWN WOULD BE FOR STRUCTURAL

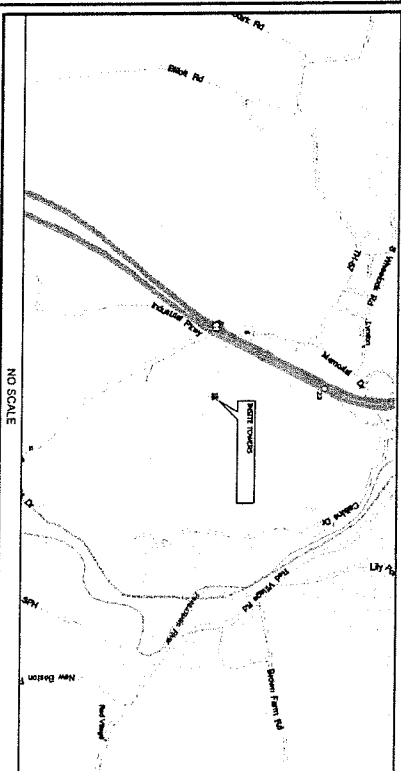
MODIFICATIONS OF THE EXISTING ANTENNA MOUNT ARE PRELIMINARY ONLY AND FINAL CONSTRUCTION DETAILS ARE SUBJECT TO CHANGE PENDING THE COMPLETION OF AN ANTENNA MOUNT STRUCTURAL ASSESSMENT.

B-1 GROUP ASSUMES THAT THE TOWER IS PROPERLY CONSTRUCTED AND MAINTAINED. ALL STRUCTURAL MEMBERS AND THEIR CONNECTIONS ARE ASSUMED TO BE IN GOOD CONDITION AND ARE FREE FROM DEFECTS WITHIN NO DETEIORATION TO ITS MEMBER CAPACITIES.

T-MOBILE TECHNICIAN SITE SAFETY NOTES

LOCATION	SEC. RESTRICTIONS	LOCATION	SEC. RESTRICTIONS
SECTION A:	ACCESS NOT PERMITTED	OUTLET:	UNRESTRICTED
SECTION B:	ACCESS NOT PERMITTED	RADIO CABINETS:	UNRESTRICTED
SECTION C:	ACCESS NOT PERMITTED	PWC DISCONNECT:	UNRESTRICTED
SECTION D:	ACCESS NOT PERMITTED	MAIN CIRCUIT D/C:	UNRESTRICTED
TRAIL:	ACCESS NOT PERMITTED	TRAIL:	UNRESTRICTED
GRS/LMO:	CAUTION: OSHA APPROVED PORTABLE EQUIPMENT - COLDER REQUIRED	OTIS/SERVO:	NOTE

LOCATION MAP



APPROVALS

TITLE	SIGNATURE	DATE
PROJECT MANAGER:		
CONSTRUCTION:		
RF ENGINEERING:		
ZONING/SITE ACO:		
OPERATIONS:		
TOWER OWNER:		

PROJECT INFORMATION

SCOPE OF WORK: UNMANNED TELECOMMUNICATIONS FACILITY
T-MOBILE EQUIPMENT MODERNIZATION

ZONING JURISDICTION: BASED ON INFORMATION PROVIDED BY T-MOBILE
(TOWN OF BURLINGTON) REGULATORY COMPLIANCE AND LEGAL COUNSEL
TELECOMMUNICATIONS EQUIPMENT DEPLOYMENT

CONSIDERED AN ELIGIBLE FACILITY UNDER THE MODEL CLASS IYA RELIEF AND JOB CREATION ACT OF 2012 (47 USC 1455(f), SECTION 8409) AND IS SUBJECT TO AN ELIGIBLE FACILITY REQUEST. EXPEDITED REVIEW A LIMITED/PARTIAL ZONING PRE-DEVELOPMENT FOR LOCAL DISCRETIONARY PERMITS (VARIANCE, SPECIAL PERMIT, SITE PLAN REVIEW OR ADMINISTRATIVE REVIEW).

SITE ADDRESS: INTERVALE RD

LATITUDE: 44.496419° N

1. J. J. (1920) N. NATIONAL STA

CURRENT USE: TELECOMMUNICATIONS FACILITY

PROPOSED USE:

TELECOMMUNICATIONS FACILITY

DRAWING INDEX

SHEET #	SHEET DESCRIPTION	REV. #
1-1	TITLE SHEET	C
GN-1	GENERAL NOTES	C
C-1	OVERALL SITE PLAN	C
C-2	EQUIPMENT PLAN & H-FRAME DETAIL	C
C-3	TOWER ELEVATIONS	C
C-4	ANTENNA PLAN & FINAL SCHEDULE	C
C-5	EQUIPMENT DETAILS	C
C-6	EQUIPMENT DETAILS	C
C-7 & C-7.1	ENCLOSURE SPECS	C
C-8	ENCLOSURE 6160 SPECS	C
C-9	B160 BATTERY CABINET SPECS	C
C-10	KAV CABINET SPECS	C
E-1	PANEL SCHEDULE & EQUIPMENT SCHEMATIC	C
G-1	EQUIPMENT GROUNDING PLAN	C
G-2 & G-3	GROUNDING DETAILS AND NOTES	C



**CALL VERMONT DIG SAFE
(800) 344-7233
CALL 3 WORKING DAYS
BEFORE YOU DIG!**



T-Mobile
T-MOBILE NORTHEAST, LLC
15 COMMENCE WAY, SUITE B
MORTON, VA 02768

TRANSCEND WIRELESS
10 INDUSTRIAL AVENUE
BARTON, NJ 07430

4BV'0445A

**SILVER
BOW
COMM.**

INTERVALE RD
BURLINGTON, VT 054

PROJECT NO:	147509.00
CHECKED BY:	R

ISSUED FOR:

REV	DATE	DOWN	DESCRIPTION
A	8/15/21	RUC	PRELIMINARY REC
B	9/7/21	RUC	PRELIMINARY REC
C	10/25/21	RUC	PRELIMINARY REC

B&T ENGINEERING, INC

THIS DOCUMENT IS
PRELIMINARY IN
NATURE AND IS NOT
A FINAL, SIGNED
AND SEALED
DOCUMENT.

IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO WITHSTAND SUCH LOADS.

SHEET NUMBER:
T-1

GROUNDING NOTES:

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM AND DETERMINE THE EXISTING SYSTEM COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AIA) THE SITE SPECIFIC (UL, LPI OR NFPA) LIGHTING PROTECTION CODE AND GENERAL COMPLIANCE WITH TELECOM AND THE GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATION OR DEFICIENCY TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRICAL SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER (ECS)) SHALL BE BONDED TOGETHER IN ACCORDANCE WITH THE NEC. BY TWO OR MORE COPPER BONDING CONNECTIONS IN ACCORDANCE WITH THE NEC.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 100 & 81) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CONDUCTORS TO BVS EQUIPMENT.
5. EACH BVS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BVS, 2 AWG STRANDED COPPER FOR OUTDOOR BVS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTI-OXIDANT COATINGS (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDED FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 4 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20' OR MORE OF 1/2" OR LARGER CONDUCTOR REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING 4 AWG COPPER WIRE CONNECTION USING #2 AWG SOLID BAR TINED COPPER GROUND WIRE, PER NEC #250.58.

GENERAL NOTES:

1. THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
 - CONTRACTOR: TRANSCEND WIRELESS
 - GENERAL CONTRACTOR (CONSTRUCTION) OWNER: T-MOBILE
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWS. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PERFORMANCE OF THE WORK AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. NOTHING LIST SUPPLIED WITH THE BID PACKAGE DESERVES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND NOTHING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIAL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, UNLESS SPECIFICALLY STATED OTHERWISE. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
8. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES AND GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWINGS. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFORM THE ACTUAL ROUTING WITH THE CONTRACTOR.
9. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PATENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
10. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
11. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
12. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.

14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
15. ALL STRUCTURAL STEEL WORK SHALL BE DETAIL, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (FY = 36 ksi) UNLESS NOTED OTHERWISE. PIPES SHALL BE ASTM A53 TYPE E (FY = 35 ksi) UNLESS NOTED OTHERWISE. ALL WELDS SHALL BE WELDED TO THE TOUCH-UP ALL SPACED AND SPACED WELDS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPARABLE ZINC RICH PAINT.
16. CONSTRUCTION SHALL COMPLY WITH UMS SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF T-MOBILE SITES".
17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK SHOULD BE SCHEDULED DURING APPROPRIATE MAINTENANCE WINDOW, USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
19. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE USED TO MONITOR EXPOSURE LEVELS. ALL WORKERS SHOULD WEAR MONITORS TO MONITOR EXPOSURE LEVELS. ALL WORKERS SHOULD BE ADVISED TO AVOID ANY DANGEROUS EXPOSURE LEVELS.
20. APPLICABLE BUILDING CODES:
 - SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL BUILDING CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (LAW) FOR THE LOCATION OF CONTRACT AND SHALL GOVERN THE DESIGN.
 - BUILDING CODE: IBC 2015
 - ELECTRICAL CODE: NEC 2017

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

- AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION, ASD, FOURTEENTH EDITION
- TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-C; STRUCTURAL STANDARDS FOR STEEL

FOR ANY CONFLICT BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHOD OF CONSTRUCTION OR OTHER REQUIREMENTS, THE MORE STRINGENT REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

ABBREVIATIONS

ACI	ABOVE GRADE LEVEL	GC	GENERAL CONTRACTOR	REF.	REFERENCE
AWG	AMERICAN WIRE GAUGE	MAX.	MAXIMUM	REQ.	REQUIRED
BVS	BASE TRANSDUCER WIRE	MGB	MASTER GROUND BAR	RF	RADIO FREQUENCY
BTS	BASE TRANSDUCER STATION	MIN.	MINIMUM	T.B.D.	TO BE DETERMINED
(E)	EXISTING	(N)	PROPOSED	T.B.R.	TO BE REMOVED
EG	EQUIPMENT GROUND	N.T.S.	NOT TO SCALE	T.B.R.	TO BE REMOVED AND REPLACED
EGR	EQUIPMENT GROUND RING	RE:	REFERENCE	(TYP)	TYPICAL



1717 S. BROADWAY
SUITE 200
DALLAS, TX 75201
714.561.1111
WWW.B+TG.COM

T-Mobile
15 COMMERCIAL WAY, SUITE 9
MORTON, MA 02768

Transcend Wireless
TRANSCEND WIRELESS
15 COMMERCIAL WAY, SUITE 9
MORTON, MA 02768

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INTERVALE RD
BURLINGTON, VT 05400

PROJECT NO: 14759/007

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REV	DATE	ISSUED FOR:
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B	9/7/21	50% PRELIMINARY DESIGN
C	10/25/21	100% PRELIMINARY DESIGN

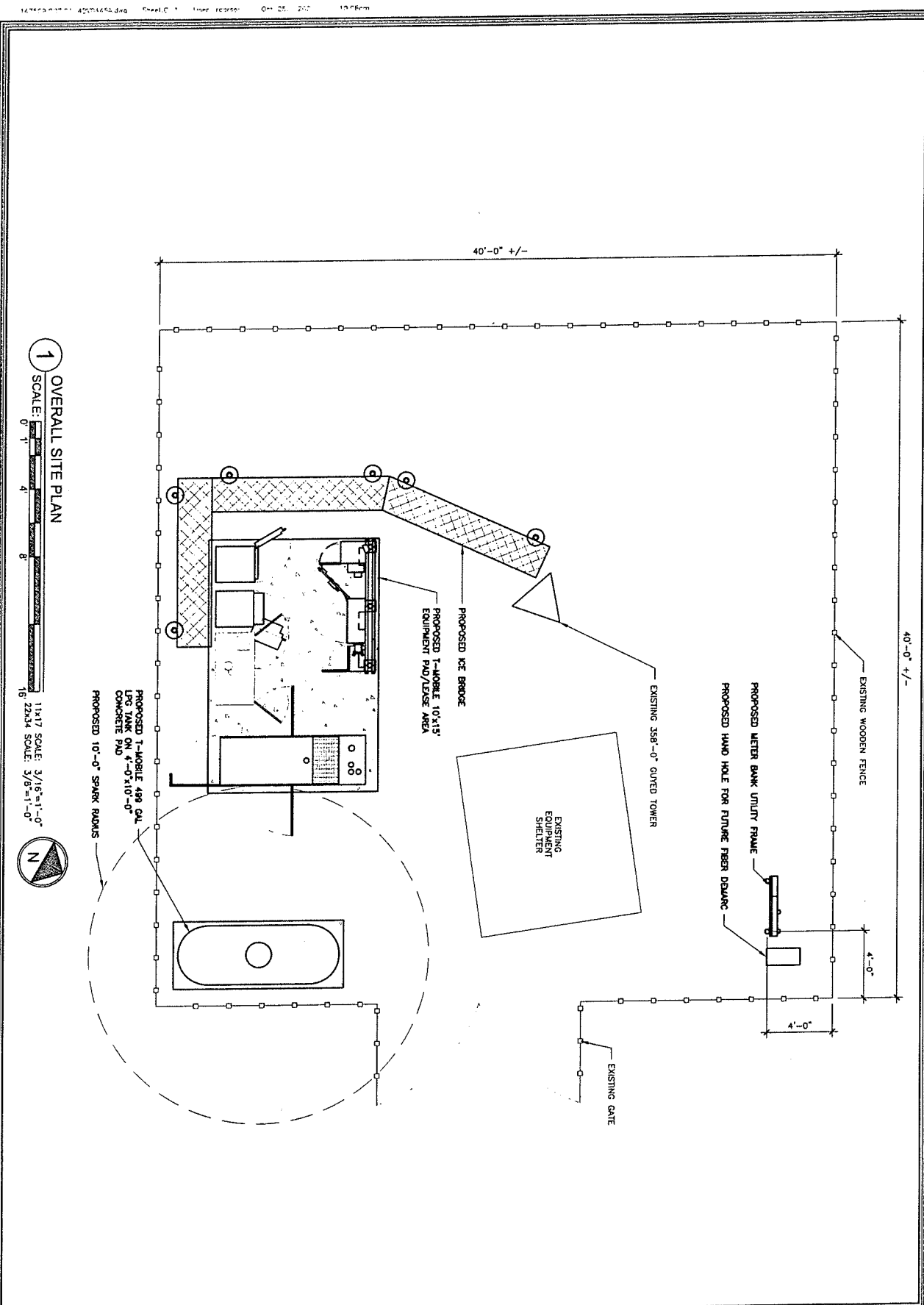
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GN-1

SHEET NUMBER: 1
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1 OVERALL SITE PLAN
SCALE: 1"=16'-0"
11x17 SCALE: 3/16"=1'-0"
16 22x34 SCALE: 3/8"=1'-0"



B+T GR

1717 S. BOULDER
SUITE 200, 74119
TULSA, OK 74119
PH: (918) 587-4650
WWW.B+T.COM

T-Mobile

T-MOBILE NORTHEAST, LLC
15 DOWNSIDE WAY, SUITE B
NORFOLK, MA 01908
WWW.B+T.COM

Transcend Wireless

TRANSCEND WIRELESS
10 INDUSTRIAL AVENUE
BURLINGTON, VT 05403

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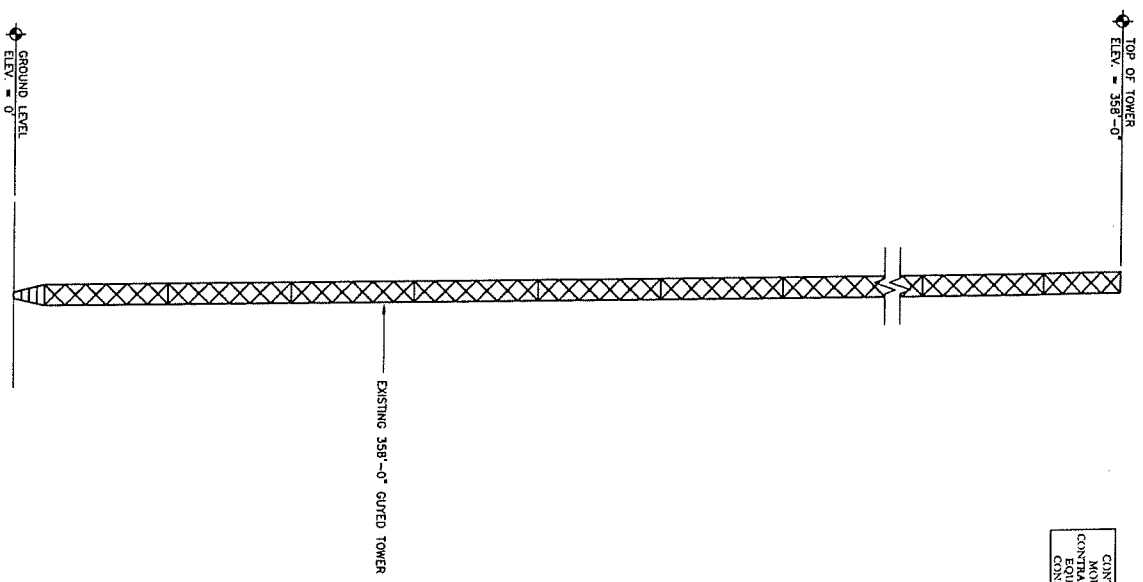
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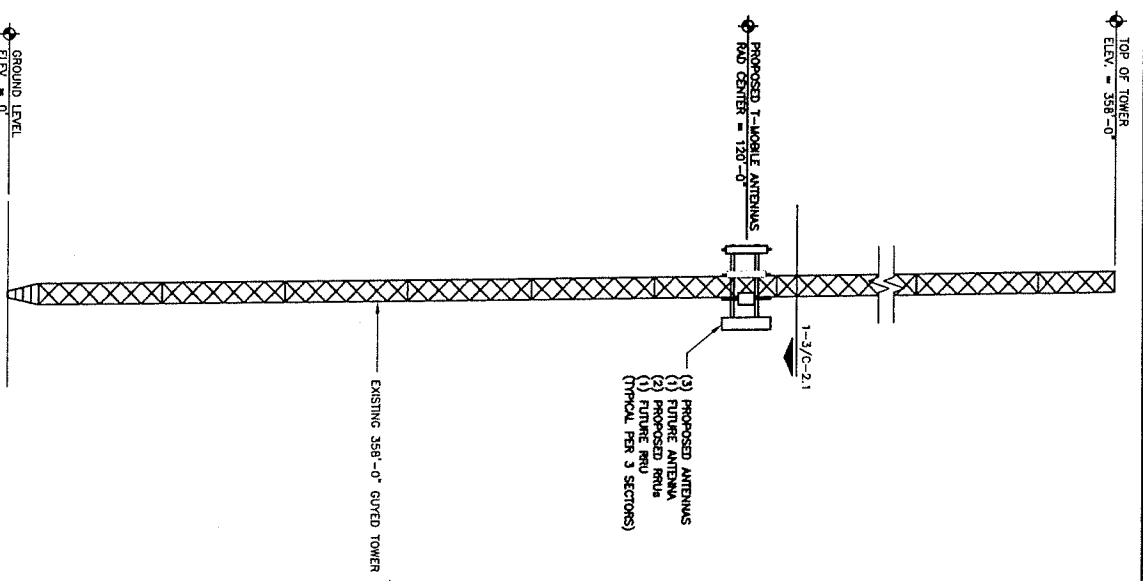
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CONTRACTOR SHALL REFER TO THE LATEST PAVING
MOINT ANALYSIS AND/OR STRUCTURAL ANALYSIS.
EQUIPMENT AND CABLE MOUNTING WITH THE SITE
CONSTRUCTION MANAGER AND STRUCTURE OWNER.



1 EXISTING TOWER ELEVATION
SCALE: 11x17 SCALE: 1"=20'
22x34 SCALE: 1"=10'



2 PROPOSED TOWER ELEVATION
SCALE: 11x17 SCALE: 1"=20'
22x34 SCALE: 1"=10'

B+T GROUP
1717 S. BOLDER
SUITE 300
NORTON, MA 02756
PH 978.567.4830
WWW.BTGP.COM

T-Mobile
T-MOBILE NORTHEAST, LLC
15 GUNNERS WAY, SUITE B
NORTON, MA 02756

Transcend Wireless
TRANSCEND WIRELESS
10 INDEPENDENCE
WATKINS, MA 02720

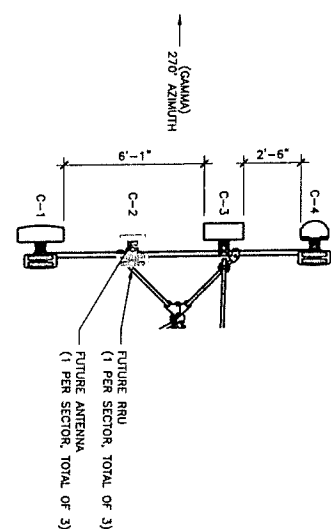
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PROJECT NO. 14759/007/07/0
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A	8/13/21	ENC	PRELIMINARY RCD
B	9/7/21	ENC	PRELIMINARY RCD
C	10/29/21	ENC	PRELIMINARY RCD

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SUITE 300
TULSA, OK 74119



3 SECTOR 3 ANTENNA AZIMUTH PLAN

SCALE: NTS

PROPOSED

FINAL ANTENNA SCHEDULE									
SECTOR	TECH	ANTENNA MODEL	KAZIMUTH	RAO CENTER	M-TILT	E-TILT	EQUIPMENT	CABLE TYPE	CABLE LENGTH
ALPHA	L6/N6	APXMM124-43-U-W420	30°	120°-0°	0°	0°/0°	(1) 4460 B71+8B5	(1) 6x24 HCS FIBER	140'
	-	FUTURE ANTENNA	-	-	-	-	-	-	-
	L2.5/N2.5	AR6449 B41	30°	120°-0°	0°	0°/0°	-	(1) 6x24 HCS FIBER	140'
	L21/V19/O19	Q44-BDH/6521/E0-6	30°	120°-0°	0°	0°/0°/0°	(1) 4460 B25+8B6	(1) 6x24 HCS FIBER	140'
BETA	L6/N6	APXMM124-43-U-W420	150°	120°-0°	0°	0°/0°	(1) 4460 B71+8B5	(1) 6x24 HCS FIBER (SWAGED)	-
	-	FUTURE ANTENNA	-	-	-	-	-	-	-
	L2.5/N2.5	AR6449 B41	150°	120°-0°	0°	0°/0°	-	(1) 6x24 HCS FIBER (SWAGED)	-
	L21/V19/O19	Q44-BDH/6521/E0-6	150°	120°-0°	0°	0°/0°/0°	(1) 4460 B25+8B6	(1) 6x24 HCS FIBER (SWAGED)	-
GAMMA	L6/N6	APXMM124-43-U-W420	270°	120°-0°	0°	0°/0°	(1) 4460 B71+8B5	(1) 6x24 HCS FIBER (SWAGED)	-
	-	FUTURE ANTENNA	-	-	-	-	-	-	-
	L2.5/N2.5	AR6449 B41	270°	120°-0°	0°	0°/0°	-	(1) 6x24 HCS FIBER (SWAGED)	-
	L21/V19/O19	Q44-BDH/6521/E0-6	270°	120°-0°	0°	0°/0°/0°	(1) 4460 B25+8B6	(1) 6x24 HCS FIBER (SWAGED)	-

FINAL ANTENNA SCHEDULE

INTERVALE RD
BURLINGTON, VT 0540

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Transcend Wireless
10 INDUSTRIAL AVENUE
MARTIN, NJ 07130

T-Mobile
T-MOBILE NORTHEAST, LLC
15 CONNORCE WAY, SUITE B
NORTON, MA 02766

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1. PROPOSED ANTENNA TO PIPE CLAMP (INCLUDED WITH ANTENNA)

2. PROPOSED RRU

3. PROPOSED PIPE TO PIPE CROSS-OVER CLAMP KIT (STEP 10 P/N: SP218 (OR APPROVED EQUIV))

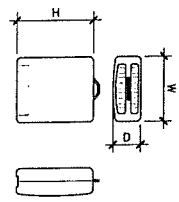
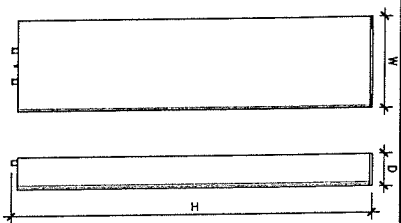
4. PROPOSED 2 3/8"x8'-0" MOUNTING PIPE

1. TYPICAL ANTENNA & RRU MOUNTING DETAIL

1A. ANTENNA MOUNTING BRACKET

2. ANTENNA DETAIL

3. REMOTE RADIO UNIT (RRU)



ANTENNA SPECS	
MANUFACTURER	RRS
MODEL	APVWAL24-43-U-N420
WIDTH	24"
DEPTH	8.5"
HEIGHT	96"
WEIGHT	55 LBS

RRU SPECIFICATIONS	
MANUFACTURER	ERICSSON
MODEL	4480 B71+R85
WIDTH	13.18"
DEPTH	9.45"
HEIGHT	17.8"
WEIGHT	75 LBS

1A. PROPOSED ANTENNA TO PIPE CLAMP (INCLUDED WITH ANTENNA)

2. PROPOSED RRU

3. PROPOSED PIPE TO PIPE CROSS-OVER CLAMP KIT (STEP 10 P/N: SP218 (OR APPROVED EQUIV))

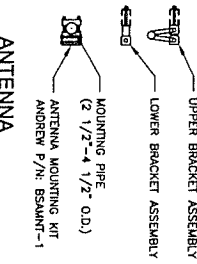
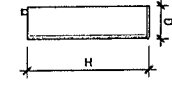
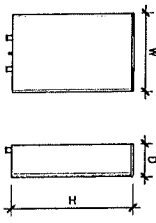
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B+T GROUP

SUITE 300
1717 S. BOULDER
MONTICELLO, ID 83403
www.btg.com

T-Mobile

T-MOBILE NORTHEAST, LLC
15 COMMERCE WAY, SUITE 8
MONTICELLO, ID 83403

Transcend Wireless

10000 WILSON
MONTICELLO, ID 83403

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SILVER BOW COMM.

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BURLINGTON, VT 05401

PROJECT NO. 141569/00701

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8/13/21	REV. PRELIMINARY RND
8/27/21	REV. PRELIMINARY RND
10/25/21	REV. PRELIMINARY RND

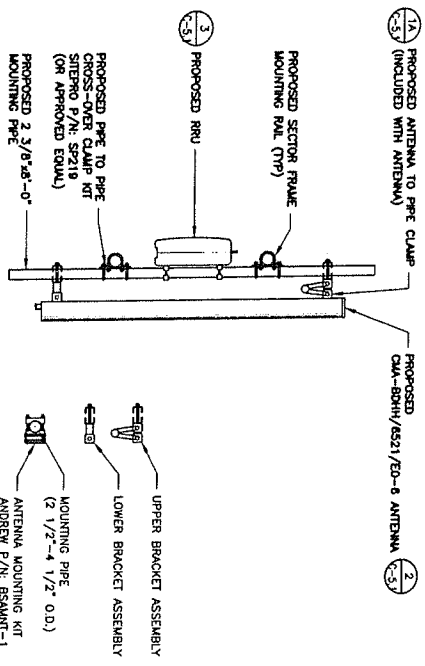
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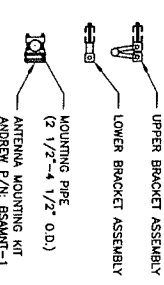
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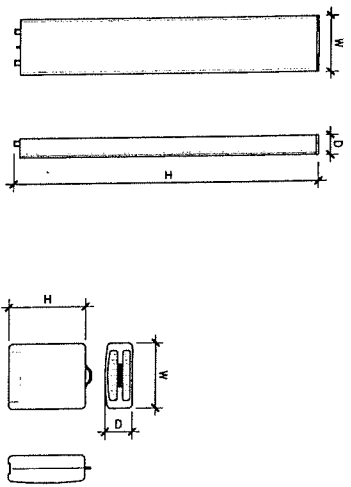
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1
TYPICAL ANTENNA
& RRU MOUNTING DETAIL
SCALE: N.T.S.



1A
ANTENNA
MOUNTING BRACKET
SCALE: N.T.S.



2
ANTENNA DETAIL
SCALE: N.T.S.

ANTENNA SPECS	
MANUFACTURER	CELLMAX
MODEL	CMA-BDHH/6521/EO-6
WIDTH	14.7"
DEPTH	5.2"
HEIGHT	81.1"
WEIGHT	61.6 LBS

RRU SPECIFICATIONS	
MANUFACTURER	ERICSSON
MODEL	4460 B23+866
WIDTH	15.1"
DEPTH	11.9"
HEIGHT	17.0"
WEIGHT	109 LBS

3
REMOTE RADIO UNIT (RRU)
SCALE: N.T.S.

PROJECT INFORMATION AND DIMENSIONS			
DIMENSION	REQUIRED	PROPOSED	CHANGE
SURFACE AREA OF THE FACES OF EQUIPMENT ON THE SUPPORT STRUCTURE	< 75 SQ.FT.	ANTENNA: (3) 96.0"x24.0" = 48.0 SQ.FT. (3) 81.1"x15.1" = 14.2 SQ.FT. (3) 17.0"x13.2" = 20.8 SQ.FT. RRU: (3) 17.0"x15.1" = 0.1 SQ.FT.* PROPOSED NEW EQUIPMENT TOTAL = 87.1 SQ.FT. FACIAL SURFACE AREA = 87.1 SQ.FT.	CHANGE TO FACIAL SURFACE AREA = 87.1 SQ.FT.
MAXIMUM VERTICAL EXTENSION FROM SUPPORT STRUCTURE	< 10'-0"	0'	0'
MAXIMUM HORIZONTAL EXTENSION FROM SUPPORT STRUCTURE	< 10'-0"	6'-11 1/2"	6'-11 1/2"
IMPERVIOUS SURFACE AREA OF THE SITE	< 300 SQ.FT.	0 SQ. FT.	0 SQ.FT.

(3) 96.0"x24.0" PANEL ANTENNAS, (3) 33.1"x20.6" PANEL ANTENNAS, (3) 81.1"x14.7" PANEL ANTENNAS, (3) 17.0"x13.2" RRU, AND (3) 17.0"x15.1" RRU ARE BEING ADDED.
 * RRU, AND ASSOCIATED EQUIPMENT LOCATED BEHIND ANTENNAS. CALCULATION IS FOR PORTION OF RRUS AND ASSOCIATED EQUIPMENT THAT EXTEND BEYOND ANTENNAS.

B+T GROUP
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SUITE 300
NORTON, MA 02716
www.btg.com

T-Mobile
T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02716

Transcend Wireless
TRANSCEND WIRELESS
15 WINDYBUSH AVENUE
WATKINS, NJ 07450

4BY0445A
SILVER BOW COMM.

INTERVALE RD
BURLINGTON, VT 05401

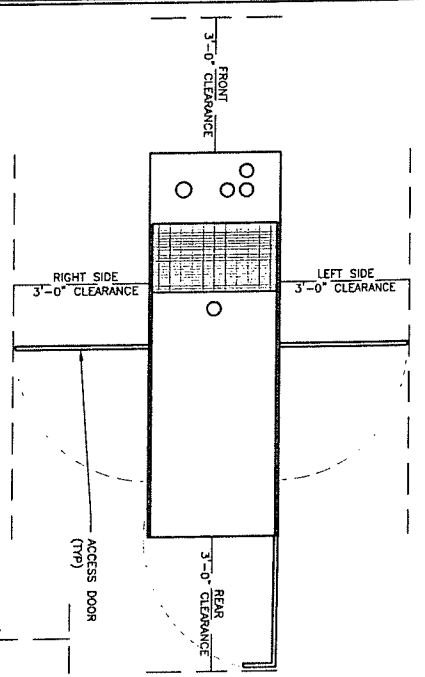
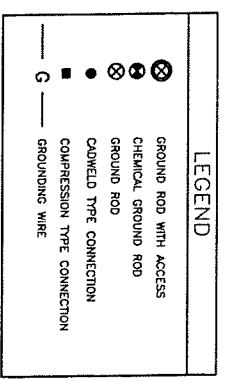
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ISSUED FOR:			
REV	DATE	DATE	DESCRIPTION
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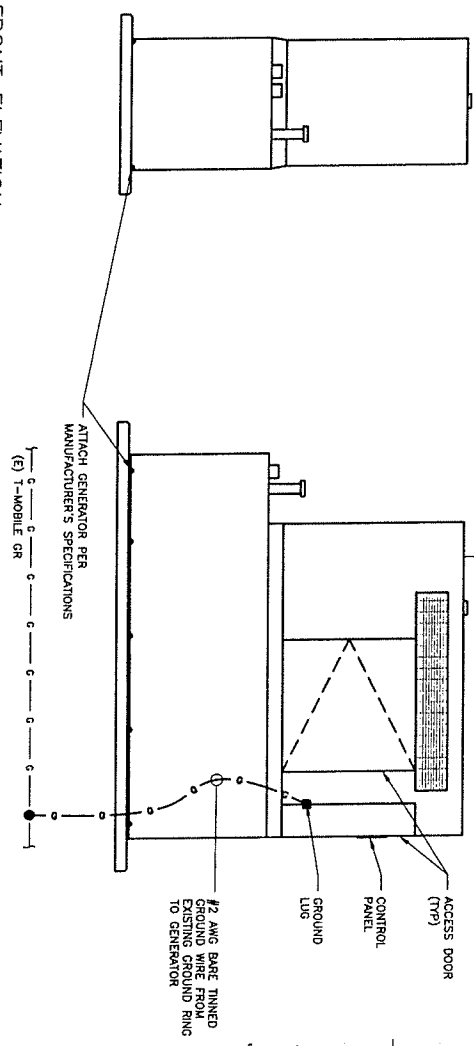
NOTES:
1. GROUND WIRE ROUTING IS SCHEMATIC ONLY. CONTRACTOR SHALL DETERMINE SUITABLE ROUTING IN THE FIELD.



PLAN

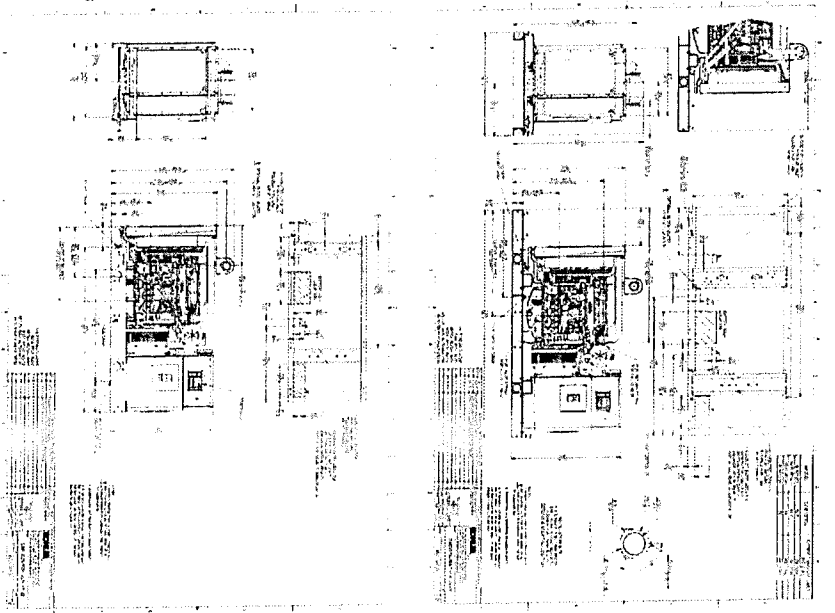
FRONT ELEVATION

RIGHT ELEVATION



1 GENERATOR DETAIL
SCALE: N.T.S.

2 GENERATOR INSTALLATION LAYOUT
SCALE: N.T.S.



B+T GROUP
1717 S. BOLLER
SUITE 200
BURLINGTON, VT 05401
PH: (802) 551-4830
WWW.B+T.COM

T-Mobile
T-MOBILE NORTHEAST, LLC
15 CONNORCE WAY, SUITE B
NORFOLK, MA 02718
WWW.B+T.COM

Transcend Wireless
TRANSCEND WIRELESS
10 INDUSTRIAL AVENUE
BURLINGTON, VT 05401

SILVER BOW COMM.
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INTERVALE RD
BURLINGTON, VT 05401

PROJECT NO: 147199/007.07
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ERICSSON

Preliminary technical specification for Enclosure 6160 AC

CAPACITY

Rack space user equipment

18U (12 rack)

Hardware capabilities

Power and CPRI support for multi-standard remote radios (RRU or AIR)

ERS Baseband and Transpond units

Lithium batteries

3PP equipment

Additional power feed available as option

MECHANICAL SPECIFICATION

Weight

Dimension (H x W x D)

Base frame height

Mounting position

Enclosure material

Color

Door

Rack type

Locking type

POWER SYSTEM

Input voltage

Input power

Output load (-48VDC)

AC SPD

DC SPD

PSU Slots

Service outlet

Priority load

LLVD 1

LLVD 2

CB ratings

Battery interface

Battery Circuit Breaker rating

FSU capacity

Enclosure 6160 AC

The Enclosure 6160 is a multi-purpose site cabinet designed to support a multitude of equipment such as ERS Baseband, Transpond, Li-Ion battery and 3PP vendor equipment. It also provides a highly capable power system and battery back-up - all in a streamlined design and minimized footprint to support cost efficient expansion of mobile broadband

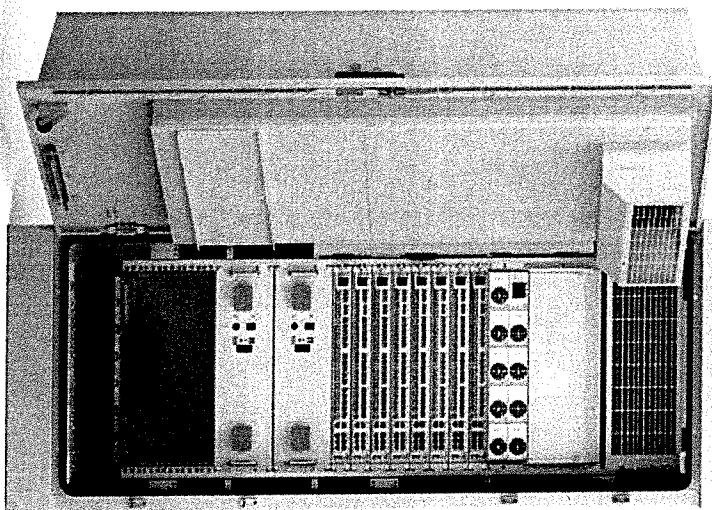
Being an all-in-one enclosure, the Enclosure 6160 is a very fitting choice for all types of sites where the capacity need is today or room for future expansion is needed. It is ideally suited for modernizing existing sites or in greenfield scenarios to match both current and future needs

With a robust design, IP65 compliance and a sealed Heat Exchanger (HEX), enclosure system the Enclosure 6160 ensures optimal environmental protection of the active equipment - ensuring them for a long-lasting service. The complete system is also integrated and verified for the entire Ericsson Radio System and ensures best-in-class service

The power system offers 31.5kW of power in total and provides 24kW of 48V DC power for both internal and external consumers

The equipment space allows 18U of rack space ensuring well enough capacity for existing need and future expansion

One of the main advantages of the Enclosure 6160 is its default integration with ERM - allowing for advanced remote monitoring and control such as fault management (alarms), inventory management and performance measurements. The cabinet also provides an open O&M interface for integration to 3PP O&M systems



1 ERICSSON 6160 CABINET SPECS
SCALE: N.T.S.



T-Mobile
T-MOBILE NORTHEAST, LLC
15 COMMACK MKT. SUITE B
NORFOLK, MA 01706

Transcend Wireless
THUNDERBOLT
10 INDUSTRIAL AVENUE
BAYVIEW, MI 48008

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INTERVALE RD
BURLINGTON, VT 0540

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B 9/7/21 RMC PRELIMINARY RD
C 10/25/21 RMC PRELIMINARY RD

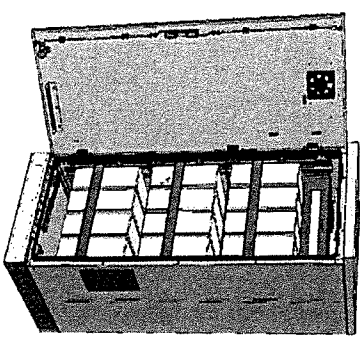
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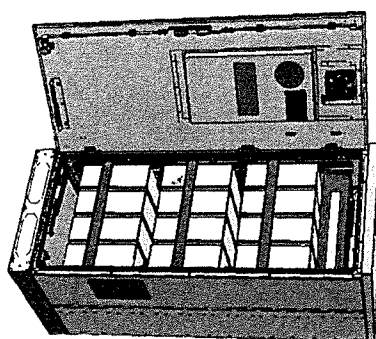
SHEET NUMBER: REVISION:
C-8 C

IF A MODIFICATION OF THE SIZE AND POSITION
OF THE SHEET IS REQUIRED, THE DESIGN
SHALL BE MODIFIED TO MEET THE REQUIREMENT.

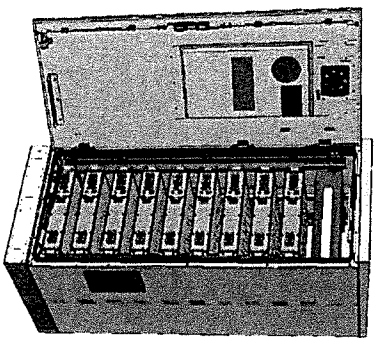
Enclosure B160



Enclosure B160
AirCon + VRLA



Enclosure B160
AirCon + Li-Ion



Enclosure B160
Convection Cooling
+ VRLA

Enclosure B160

- | | |
|--|--|
| Capacity | Environmental specification |
| — VRLA 12V: 100Ah / 150Ah / 170Ah / 190Ah / 210Ah | — Ingress protection: VRLA/Sodium IP44 |
| — Li-Ion: 24U 19" / 23" | — Relative humidity: Li-Ion IP55 |
| — Sodium-Nickel: 3x FLAMM | — Climate system: 15-100% |
| Electrical specification | — Air Conditioner |
| — DC Output: -48VDC/200A | — Fan type: DC |
| — Battery breakers: 2x 125/2p | — Cooling capacity: 500W @L35/L35 |
| — Alarms: Door open, Climate failure, MCB Connection | |
| Mechanical specification | — Convection cooling |
| — Weight: 134kg | — Emergency fan |
| — Dimensions: 63 x 26 x 26 in. (incl. Base frame) | |
| — Base frame height: 6 in. | |
| — Material: Galvanized steel (180g/m ²) | |
| — Color: Powder paint NCS 2802-B | |
| — Door: Front access | |
| — Locking type: Pod lock / cylinder | |

1 ERICSSON B160 BATTERY CABINET SPECS
SCALE: N.T.S.

B+T GRA
1717 S. BOULDER
SUITE 200 7410
PH (913) 567-4433
WWW.B2B2.COM

T-Mobile
T-MOBILE NORTHEAST, LLC
15 COMMERCIAL WAY, SUITE 8
NORFOLK, VA 07716

Transcend Wireless
TRANSCEND WIRELESS
17400 W. 10TH AVE
MINNEAPOLIS, MN 55425

4BY0445A
**SILVER
BOW
COMM.**

INTERVALE RD
BURLINGTON, VT 05400

PROJECT NO:	141509.00	
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B	9/7/21	ENC. PRELIMINARY R
C	10/26/21	ENC. PRELIMINARY R

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SHEET NUMBER
C-9

RAC24

RAC® Series

RAC24

RAC® Series

Versatile Outdoor Enclosure Solution

The Remote Access Cabinet (RAC) product family from Purcell Systems is as diverse and versatile as enclosures get. From 18" to more than 48", the RAC series of enclosures have a size and configuration ideal for every outside equipment deployment requirement you have.

From standard, off-the-shelf cabinets to modular, highly configurable enclosure systems, the RAC family can deliver exactly what you need and more.

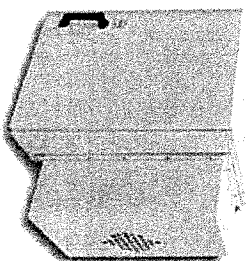
Multiple configurations for:

- Equipment protection
- Power management
- Battery backup
- Ancillary equipment deployments

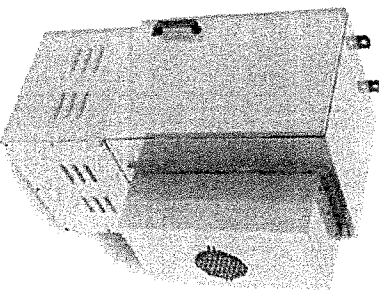
Climate control systems including:

- Direct Air Cooling
- Thermoelectric Cooling
- Air Conditioning

Preset configurations, adjustable components, and a wide variety of kits and accessories provide exactly what you need to deploy your equipment in any environment or location.



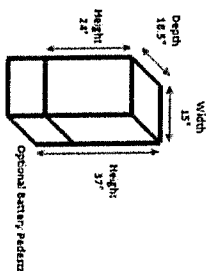
RAC24 with side-mount thermoelectric cooler



RAC24 with side-mount direct air cooler and battery pedestal

Technical Specifications

Exterior Dimensions



Interior Dimensions

• 23"H x 14"W x 17.5"D

Construction Materials

- Aluminum (lightweight, corrosion-resistant)
- Paint: polyester powder coat

Door/Side Panel Construction

- Front door with alarm
- Removable back panel for rear equipment access
- Dual-point latched and pad lockable (padlock provided by end-user)

Equipment Mounting

- SRU of equipment space: 19" vertically mounted
- Adjustable from front to back; 4 positions

Mounting Options

- Wall mount
- Pole mount
- Pad mount (with battery pedestal)

Power Distribution

- AC power distribution
- DC power distribution

Battery Pedestal Option

- Open air environment: will support 6.3Ah batteries
- Compatible with pad, pole, or wall mount

Thermal Management Options

- Blank Plate
- Louvered inlets with removable filters
- Direct Air Cooling: +24VDC, -48VDC, or 120VAC with GORE filter for environmental protection
- Thermoelectric Cooling: +24VDC or -48VDC, side mount
- Air Conditioner: 2,000 BTU/hr with integrated heater, side mount

Additional Options

- AC receptacle: Two outlet 15A standard
- Grounding: 8 position ground bar (a second 8 position ground bar with AC power distribution)
- Alarm block: 6 position or 12 position

Weight

- 35 lbs cabinet only
- 50 lbs cabinet with direct air cooling option
- 57 lbs with thermoelectric cooling option
- 85 lbs with 2K air conditioner option

Agency Information

- UL-508A; NEMA 3R

Warranty

- 5 years enclosure/1 year thermal system

PURCELL
SYSTEMS

Purcell Systems, Inc.
16125 East Euclid Avenue Spokane Washington 99216
Phone: 509.735.0341 www.purcellsystems.com

PURCELL
SYSTEMS

1 PURCELL RAC24 (AAV) CABINET SPECS
SCALE: N.T.S.

B+T GROUP
1775 S. BROADWAY
SUITE 300
TULSA, OK 74119
PHONE: 918.436.1010
WWW.B+T.COM

T-Mobile

T-MOBILE NORTHEAST, LLC
15 CONVERSE WAY, SUITE 8
NORFOLK, MA 02706

Transcend Wireless

TRANSCEND WIRELESS
1000 W. 10TH AVE
WABASH, IN 47380
WWW.1000.COM

48V0445A

**SILVER
BOW
COMM.**

INTERVALE RD
BURLINGTON, VT 05400

PROJECT NO: 16109.007
CHECKED BY: RM

REV	DATE	BY	DESCRIPTION
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2	5/7/03	RM	PRELIMINARY NO
3	10/25/03	RM	PRELIMINARY NO

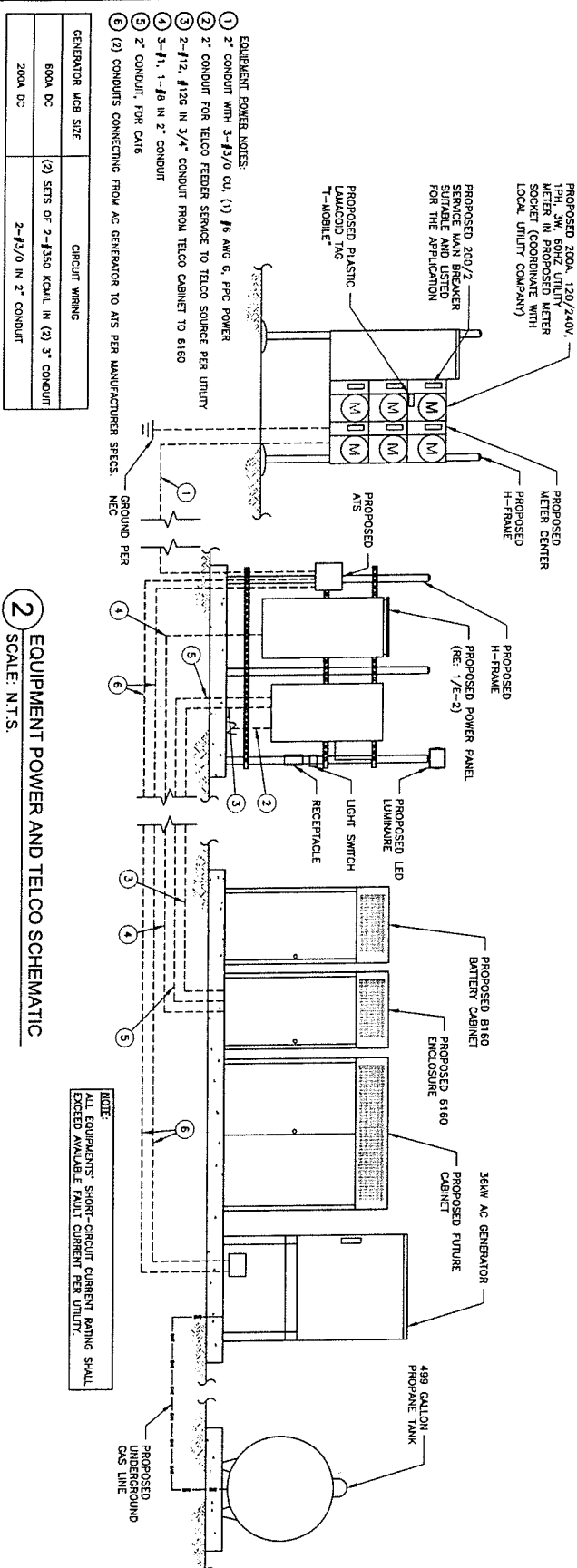
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SHEET NUMBER: 1
REVISION: C-10

[illegible]

1 FINAL T-MOBILE PANEL SCHEDULE
SCALE: N.T.S.



NOTE:
ALL EQUIPMENTS' SHORT-CIRCUIT CURRENT RATING SHALL EXCEED AVAILABLE FAULT CURRENT PER UTILITY.

2 EQUIPMENT POWER AND TELCO SCHEMATIC
SCALE: N.T.S.

SHEET NUMBER:	E-1	REVIS:	C
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INTERVALE RD
BURLINGTON, VT 0540

**SILVER
BOW
COMM.**

4BV0445A

TRANSCEND WIRELESS
10 INDUSTRIAL AVENUE
MARTIN, NJ 07430

Transcend Wireless

T-Mobile
T-MOBILE NORTHEAST, LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH (918) 587-4630
www.btgrp.com

1. ALL EQUIPMENT ENCLOSURES, DEVICES AND CONDUITS SHALL BE GROUNDED TO CONFORM WITH THE LATEST REQUIREMENTS OF THE NEC BY THE INSTALLATION OF A SEPARATE, GREEN, INSULATED GROUNDING CONDUCTOR FOR ALL FEEDER AND BRANCH CIRCUITS. DRAINAGES, GROUND CONDUCTORS SHALL BE KEPT CONTINUED IN THE LENGTH AND SHALL BE BONDED TO EACH ENCLOSURE THEY PASS THROUGH. CONDUIT SHALL NOT BE USED AS A GROUNDING CONDUCTOR.

2.1. BE #2 AWG SOLID BARE TINNED COPPER (SRTC) FOR ALL GROUNDING SYSTEM WIRE UNLESS OTHERWISE NOTED, OR OTHERWISE REQUIRED BY CODE.

2.2. BE MINIMUM 12" BEND RADIUS. KEEP NUMBER OF BENDS TO A MINIMUM.

- 2.3. AVOID LONG BONDING CONNECTION RUNS. MAKE DIRECT A
POSSIBLE.
- 2.4. NOT HAVE ANY U-SHAPED RUNS.
- 2.5. BE IN NON-METALLIC CONDUIT ONLY, IF IN CONDUIT.
- 2.6. BE PLACED THROUGH NON-METALLIC SLEEVES IN FLOORS,
WALLS, CEILINGS, ETC.
- 2.7. PROTECTED IN NON-METALLIC CONDUIT WHERE EXPOSED
ABOVE GRADE.

3. INSTALL ALL GROUNDING RINGS AND RADIALS WITH CONDUCTIVE

- CEMENT, SAMKUSHA AS DISTRIBUTED BY ELECTRIC MOTION COMPANY, INC., WINSTED, CT 06098, OR AS SPECIFICALLY INDICATED. INSTALL PER MANUFACTURER'S SPECIFICATIONS.

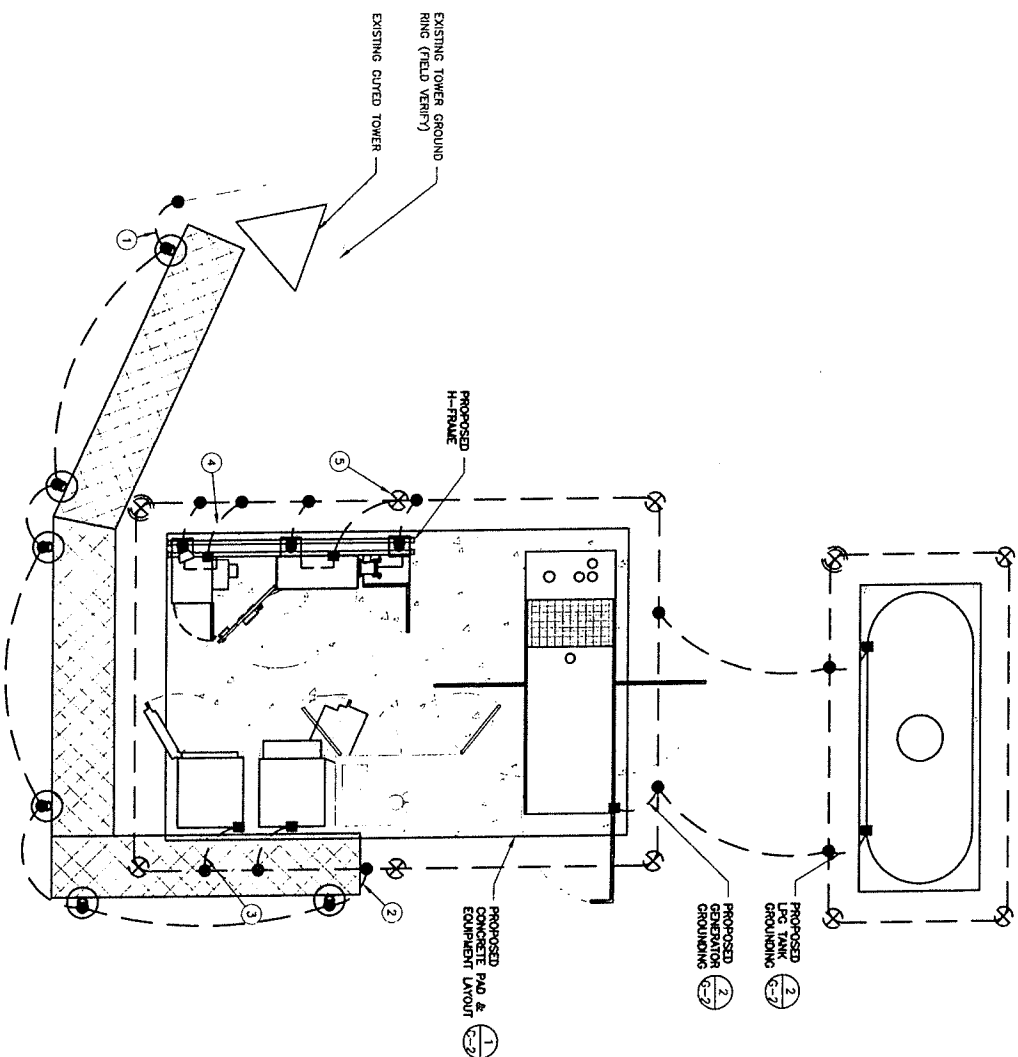
- 4.1. MINIMUM 30" BELOW GRADE, OR BELOW FROST LINE, WHICHEVER IS DEEPER.
- 4.2. MINIMUM 2' FROM FOUNDATIONS, FOOTINGS, OTHER GROUNDING SYSTEMS AND ALL CONDUCTIVE OBJECTS.
- 4.3. WITH MINIMUM 12" BEND RADIUS.
- 4.4. BY EXOTHERMIC WELDING.
- 4.5. BOUNDED TO A SINGLE POINT GROUND (SPG) WITH A SINGLE WIRE AS INDICATED ON DRAWINGS.

- 5.1. MINIMUM 5/8" DIAMETER.
- 5.2. MINIMUM 10' LONG.
- 5.3. COPPER-CLAD GALVANIZED STEEL OR STAINLESS STEEL.
- 5.4. PLACED IN UNDISTURBED SOIL AND BELOW THE FROST LINE.
- 5.5. INSTALLED WITH MINIMUM SEPARATION DISTANCE OF TWICE THE DEPTH OF THE ROD(S), OR AS INDICATED ON DRAWING.
- 5.6. MINIMUM TWO (2) RODS ON THE TOWER RING OR ONE (1) PER LEG, WHICHEVER IS LARGER. MINIMUM FOUR (4) RODS ON EVERY EQUIPMENT BUILDING RING WITH ONE (1) AT EACH CORNER OR AS INDICATED. MINIMUM ONE (1) ROD FOR POWER SERVICE GROUNDING ELECTRODE AND MINIMUM ONE (1) ROD AT END OF EACH RADIAL.

6. CONDUCTIVE OBJECTS, SUCH AS FENCES, SHALL BE BONDED TO THE GROUNDING SYSTEM IF WITHIN 20' OF THE TOWER GROUNDING SYSTEM, OR 5' OF ANY OTHER GROUNDING COMPONENT.

	EXISTING GROUND WIRE		COPPER GROUND ROD
	GROUND WIRE		TEST WELL
	EXOTHERMIC WELD		
	MECHANICAL WELD		

- ① BOND TO TOWER GROUND RING
- ② #2 AWC BOND FROM VERTICAL H-FRAME AND ICE BRIDGE POST TO EXTERNAL GROUND RING (TYP. EVERY POST)
- ③ #2 AWC STFC BOND FROM TOWER GROUND RING TO EQUIPMENT
- ④ EQUIPMENT BOND TO GROUND RING (TYP)
- ⑤ 5/8" x 10' GROUND ROD



1 EQUIPMENT GROUNDING PLAN
SCALE: N.T.S.

B+T GRI
1717 S. BOULDER
SUITE 300
TULSA, OK 74119

T-Mobile
T-MOBILE NORTHEAST, LLC
15 CONNORSE WAY, SUITE B
NORTON, MA 02766

Transcend Wireless
TRANSCEND WIRELESS
10 INDUSTRIAL AVENUE
MARTINE, NJ 07130

4BV0445A
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INTERVALE RD
BURLINGTON, VT 054

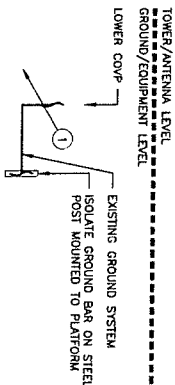
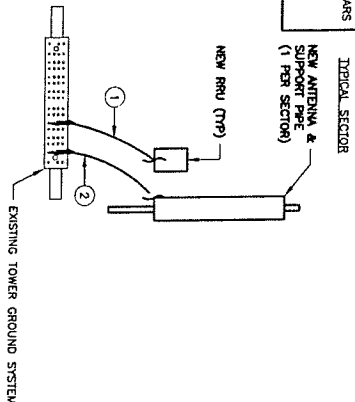
PROJECT NO:		147599.00
CHECKED BY:		R
ISSUED FOR:		
REV	DATE	DESCRIPTION
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B	9/7/21	FLAC PRELIMINARY R
C	10/23/21	FLAC PRELIMINARY R

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LEGEND

- EXOTHERMIC CONNECTION
- MECHANICAL CONNECTION
- ① #2 AWG STRANDED INSULATED COPPER GROUND WIRE
- ② ANTENNA GROUND
- ③ NON-ISOLATED GROUND BARS (1 PER SECTOR)
- NOT DUSY CHAINED
- SCREVE PAINT FROM PAINTED SURFACES



1 ANTENNA GROUND DIAGRAM

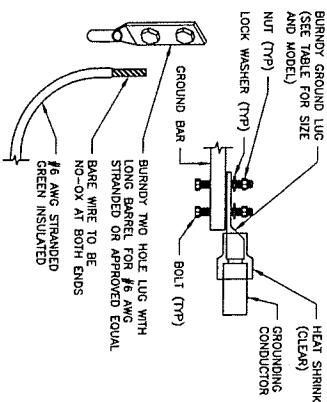
SCALE: N.T.S.

WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38 3/8" - 16 NC S 2 BOLT	
#2 AWG SOLID TINNED	YA3C-2TC38 3/8" - 16 NC S 2 BOLT	
#2 AWG STRANDED	YA2C-2TC38 3/8" - 16 NC S 2 BOLT	
#2/0 AWG STRANDED	YA2B-2TC38 3/8" - 16 NC S 2 BOLT	
#4/0 AWG STRANDED	YA2B-2N 1/2" - 16 NC S 2 BOLT	

- NOTES:
- ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER AND NUT.
 - COPPER SHIELD, ANTENNA, OR NO-OX OR APPROVED EQUAL, SHALL BE PLACED WHERE ALL DISSIMILAR METALS CONNECT.
 - ALL LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

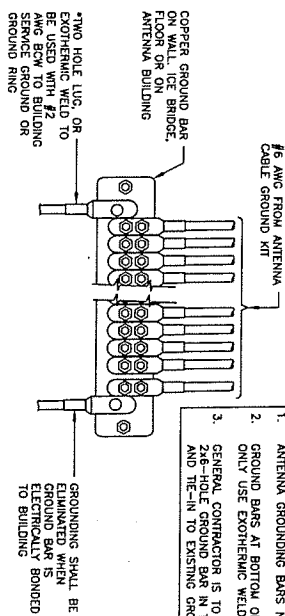
2 MECHANICAL LUG CONNECTION

SCALE: N.T.S.



3 GROUNDWIRE INSTALLATION

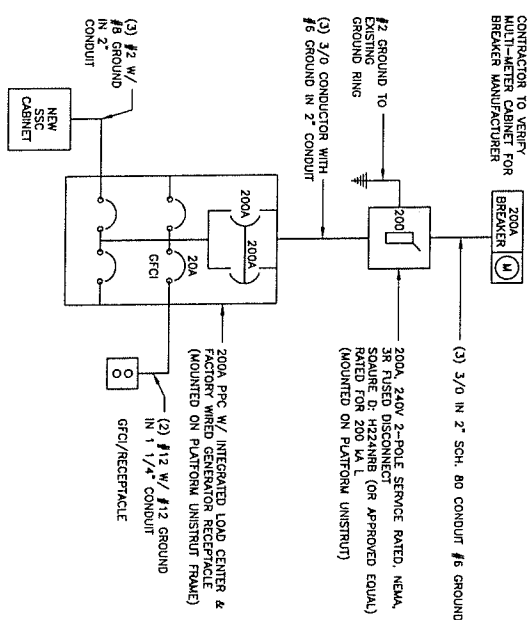
SCALE: N.T.S.



- NOTES:
- ANTENNA GROUNDING BARS NOT TO USE INSULATORS.
 - GROUND BARS AT BOTTOM OF BUILDINGS SHALL ONLY USE EXOTHERMIC WELDS.
 - GENERAL CONTRACTOR IS TO FURNISH AND INSTALL A 24-HOLE GROUND BAR IN THE GFR OF THE RBS AND TIE-IN TO EXISTING GROUND RING.

4 TYPICAL ONE-LINE DIAGRAM

SCALE: N.T.S.



B+T GRA
1717 S. BOLLER
SUITE 200
NORTH AVENUE
MORTON, IL 61550
618-667-1000

T-Mobile
T-MOBILE NORTHEAST LLC
15 CONNOR WAY, SUITE B
MORTON, IL 61550
618-667-1000

Transcend Wireless
TRANSCEND WIRELESS
1500 N. WILSON
MORTON, IL 61550
618-667-1000

SILVER BOW COMM.
INTERVALE RD
BURLINGTON, VT 05401

PROJECT NO: 14169 007
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B 8/17/21 INC. PRELIMINARY EDC
C 10/25/21 INC. PRELIMINARY EDC

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G-2
SHEET NUMBER
REVISION

Burlington Planning Commission

149 Church Street
Burlington, VT 05401
Telephone: (802) 865-7188
(802) 865-7195 (FAX)
(802) 865-7144 (TTY)

www.burlingtonvt.gov/pz

Andy Montroll, Chair
Bruce Baker, Vice-Chair
Yves Bradley
Alexander Friend
Michael Gaughan
Emily Lee
Brynne Martin

Burlington Planning Commission

Tuesday, November 9, 2021, 6:30 P.M.

Remote Meeting via Zoom, with City Hall In-Person Option

Minutes

Members Present	A Montroll, Y Bradley, A Friend, M Gaughan, E Lee, B Martin
Staff Present	M Tuttle
Public Attendance	A Simon, R Perry, B Headrick, S Bushor, D Goetz

I. Agenda

Call to Order	Time: 6:34pm
Agenda	No changes to the published agenda.

II. Public Forum

Name(s)	Comment
A Simon	Presenting a petition to preserve the land at 453 and 501 Pine Street. Request time for Save Open Space Burlington on an agenda in the coming months to discuss, including a review of the Barge Canal Site's history.
R Perry	Requesting that the Commission enter a partnership with the Save Open Space Burlington group to remediate the Barge Canal site as a working laboratory to manage the remediation of the site through nature based climate solutions.
S Bushor	Want to make sure that if we don't build parking we are not strangling our city. How is handicap parking provided under a scenario where we eliminate minimum requirements, and remove on-street parking? Are we creating a city for aging-in-place and welcoming people with disabilities.
B Headrick	Opposed to changing policy, not sure where cars will park if we don't have on-site parking. How does this coordinate with goal to have bike lanes, street trees? Unreasonable to expect that everyone will give up cars. Propose requirement that all streets are resident-only to push commuters to use transit, and ensure that UVM events are not using city streets.

III. Chair's Report

A Montroll	No report.
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IV. Director's Report

M Tuttle	Next week Council will discuss several zoning items including two amendments referred by the PC, short-term rentals, and the parking amendment before the Ordinance Committee. Mayor will soon be announcing new housing initiatives, including and elevating three of the zoning amendments on the Commission's radar- South End Enterprise District, Trinity Campus, and Missing Middle. City staff
----------	---

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	is participating in Citywide Racial Equity Training; opportunity may be extended to Commissions in the future.
--	--

V. Discussion: Proposed CDO Amendment- Minimum Parking & TDM

Action: Communicate to Council Ordinance Committee that: "the Commission is requesting the Committee refer the draft parking amendment to the Commission for proper vetting for public input, review, and to make a recommendation about the amendment back to the Committee with the understanding that time is of the essence."

Motion by: Y Bradley	Second by: E Lee	Vote: Approved Unanimously
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Type: Discussion	Presented by: M Tuttle
------------------	------------------------

M Tuttle indicated that some Commissioners had attended a meeting to hear about and discuss the proposed amendment. Staff introduced this on the agenda to provide another opportunity for additional comments and questions that staff can refer to the Ordinance Committee next week.

Commission discussion:

- M Gaughan indicated that policy needs more study to find a TDM solution that can be implemented on a neighborhood scale, possibly run by the City, to recognize the unique needs of residential areas.
- Y Bradley indicated strong concerns with how the Commission was circumvented on an issue that deserves a lot of thought and discussion, and the feeling that being asked to rubber stamp this process. Acknowledged the urgency of the climate emergency, but felt that it wouldn't be impacted by taking a few months to get public input and get the policy right. A number of Commissioners agreed, expressing concerns about minimizing Planning Commission role and power.
- E Lee indicated that parking is one of the most controversial and emotional issues, and at the same time there is a need to shift away from SOV, which is the biggest source of emissions in VT. Concern about city policies that give away free street parking, when that resource could be monetized to support a city-wide TDM program. Indicated general support for eliminating the minimum parking requirements, but noted that TDM needs a lot of focus and energy to get right.
- B Martin indicated full support for the policy, due to climate emergency and need to make more climate and housing friendly policies regarding parking.
- A Friend indicated concern that this is not a small issue, and that a lot of people care about getting this policy right. Also asked for information about the economics of parking as part of housing cost.
- A Montroll expressed a concern that there isn't a deep level of focus on the amendment and making sure the details are right.

Letter of Support- Planner Position

Action: Approve Letter of Support with edits		
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Motion by: M Gaughan	Second by: A Friend	Vote: Approved Unanimously
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Type: Discussion, Action	Presented by: M Tuttle
--------------------------	------------------------

M Tuttle shared a draft letter of support for creation of a new position based on Commission's past discussions about department resources. M Tuttle answered a questions about future staffing and about the department's role in applying for and managing work through ARPA and Infrastructure Bill programs

VI. 2022 Meeting Schedule

Action: Approved 2022 Regular Meeting and Executive Committee meeting schedules		
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Motion by: A Friend	Second by: M Gaughan	Vote: Approved Unanimously
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Type: Action	Presented by: M Tuttle
--------------	------------------------

Tuesday, December 14, 2021

VII. DRB Representatives to Committees

Action: Approve nomination of DRB representatives to committees		
Motion by: B Martin	Second by: A Friend	Vote: Approved Unanimously
Type: Action	Presented by: M Tuttle	

VIII. Commissioner Items

• Next meetings are January 11 and January 25, 2022. • Next Executive Committee is January 25, 2022.

IX. Minutes and Communications

Action: Approve the minutes and accept the communications		
Motion by: A Friend	Second by: B Martin	Approved Unanimously
Minutes Approved: November 9, 2021		
Communications Filed:		
• Documents included in agenda packet: https://www.burlingtonvt.gov/CityPlan/PC/Agendas		

X. Adjourn

Adjournment	Time: 8:05pm	
Motion: E Lee	Second: M Gaughan	Vote: Approved Unanimously



 Andy Montroll, Chair

Signed: January 11, 2022

Respectfully submitted by:



Meagan Tuttle, Director