Burlington Development Review Board
149 Church Street, City Hall
Burlington, VT 05401
www.burlingtonvt.gov/pz/DRB
Telephone: (802) 865-7188
Fax (802) 865-7195

Austin Hart
Brad Rabinowitz
Jonathan Stevens
Alexandra Zipparo
Israel Smith
AJ LaRosa
Geoff Hand
Wayne Senville, (Alternate)
Jim Drummond, (Alternate)

BURLINGTON DEVELOPMENT REVIEW BOARD
Tuesday February 2, 2016, 5:00 PM
Contois Auditorium, City Hall, 149 Church Street, Burlington, VT
Minutes

Board Members Present: Austin Hart, Brad Rabinowitz, Jonathan Stevens, Israel Smith, Ali Zipparro, A.J.LaRosa, Wayne Senville
Staff Members Present: Scott Gustin, Mary O'Neil, Anita Wade

I. Agenda
16 Rose St requested a deferral for March 2, 2016.

II. Communications

III. Minutes

IV. Public Hearing

1. 16-0730CU; 1 Mill St (NMU, Ward 1E) Catamount Holding Co
Change of use from warehouse/office/lab space to primary and secondary school. No site or exterior building changes. (Project Manager, Mary O'Neil)

A.J.LaRosa and G.Hand recused.
A.Hart – asked if applicant had seen staff findings and recommendations.
L.Letounneaur – applicant's response was affirmative.
W.Senville - one question about how students get to classrooms with the narrow drive and steep slope with not great visibility?
L.Letounneaur – explained the front entrance is on the river. The back entrance will not be used.
A.Hart – questions whether parking is sufficient?
M.ONeil – the applicant has shown a surplus of parking.
J.Stevens – it seems a little dangerous. How will this be managed?
L.Letounneaur - children are grades 6 thru 12. Parents will drop off. Bus drop off is usually guided by a staff person.
J.Stevens - how many will be let out.
L.Letounneaur - about 27 to 25 children.
A.Zipparo - questions the continuity of the sidewalks.
L.Letounneaur – explained area for loading, visitor parking and that there are no sidewalks near the building.
A.Zipparo - are the buses turning around without backing up?
L.Letounneaur - yes, although some are shorter buses.
A.Hart – we should make this a public hearing and place applicant under oath. Swears in applicant.
J.Stevens - some children may come by public transport. Where is the bus stop?
L.Letounneaur – at the Riverside Ave, Colchester Ave intersection.
J.Stevens – on the Winooski side and Burlington side?
L.Letounneaur – yes.
A.Zipparo - concerned about the pickup and drop off with the loading situation. Burlington doesn't have a safe transport system.
L.Letounneaur - staff is guiding the transport vehicles. It will be a controlled situation.
A.Zipparo – the reality is that someone is not always able to pick up students. Is it possible for the school to testify?
Sharon Bushor - City Councilor for Ward 1; though not an expert on transportation, the concern is traffic. Can appreciate the Board's concern pertaining to this intersection. The public transportation

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drop off of students or anyone who has to navigate the intersection of Riverside Ave and Colchester Ave needs to be addressed if this project is approved. Thank you for taking my comments.
I.Smith – asks where the school location is within the building. The trouble is understanding the pickup/drop off in relation to the activity of the loading dock.
L.Letounneaur - you are right that this is an active area depending where area is being serviced. There is no heavy trucker traffic.
W.Senville - how do students enter the walkway along the building? Do they have to walk thru some of parking lot?
L.Letounneaur – the parking lot brings you to the entrance.
A.Zipparo – where do the city buses drop off?
L.Letounneaur - they drop off at Riverside Ave.
A.Zipparo – would like to see more of a transportation plan for picking up and dropping off students.
I.Smith – familiar with the drop off area, which is very narrow and no sidewalk in area. Need more plans.
A.Zipparo – like to know the ways the school bus may drop off.
W.Senville - can Kay St be used as access?
L.Letounneaur - do not know. This is a cut through for car traffic to go in and out.
A.Hart – closed the public hearing at 5:22pm.

Certificate of Appropriateness

V. **1. 16-0007CA; 351 North Ave (RM-W, Ward 4N) Burlington College**

Amendments: remove 1st floor assembly space, add two living units and two parking spaces, relocate/redesign west entrance with associated landscape changes add small fenced in dog park, add grilling patio, utility pad, 65 indoor bike parking, retain Porte cochere.

(Project Manager, Scott Gustin)

W.Senville recused.
A.Hart - swears in applicants and asks to summarize project
E.Farrell – presentation on the relocation of interior uses.
A.Hart – is the assembly area changing to a main lounge for only the apartments and not the college?
E.Farrell – correct. Went over site plan and landscaping changes. The portico will remain in front for an outdoor meeting space. Rear recreational area will have access to the parking area.
J.Stevens - questions the footprint of building and whether Burlington College is the owner.
E.Farrell – yes, the college retains ownership of the diocesan section and I share ownership of the remainder of the building.
S.Gustin - Burlington College and Eric are owner/applicant.
E.Farrell - we own the property together and applying today as an association.
J.Stevens - the initial elevation show porte cochere unattractive and not historic.
B.Rabinowitz - questions about the entrance feeling the entrance is degraded by new site plan.
E.Farrell – in relationship of other areas the backside and more parking it will make more sense and still trying to keep it a functional entrance
A.Hart - is entrance on Grand St ornamental?
E.Farrell - think it will be used by people.
G.Hand - is it financial reasons for not removing the porte cochere?
E.Farrell - think we can repurpose the area, since they would like us to keep it.
G.Hand - agree it is a negative change. Question the handicap parking.
E.Farrell – presents the pedestrian walkway and mentions there is no handicap parking in the lower lot.
A.Zipparo - is the bike parking in front of building?
E.Farrell - substantial parking in interior. Visitors more likely to use main entrance. Front entrance will be used by residents usually, maybe more if there were amble front street parking.
A.Zipparo - significant changes in front from what we saw originally, when main entrance was considered in the front.
B.Duncan - center of building is used as the central stairs for to all four stories encouraging use of this side of the building to the main lobby with intercoms at both entrances.
A.Zipparo – questions use of bike racks for front entrance.
E.Farrell - can put bike racks near front entrance and near college entrance.

J.Stevens – questions about neighborhood banks need to have entrance facing North Ave.
I.Smith – fine that old original entrance is being restored. Leaving the 1970's port cochere is more dominant than entrance and need to be convinced that both are okay. Leaving the 1970's entrance detracts from original entrance of the building.
E.Farrell - support for port cochere is not unanimous for us. It is purely functional and probably the same financially either off or on, but it is not a deal breaker for removing the port cochere.
I.Smith - what else could you come up with rather than leaving what's there?
G.Hand – unclear about handicap accessibility and about the bike entrance and if it is close to bike entrance.
J.Stevens – would like to hear from the College.
I.Smith – could we get a copy of the renderings, they were not in our package.
E.Farrell – we will get them to the staff and Board.
A.Hart – closes the public hearing at 5:50pm

2. **16-0762PD; 16 Rose St. (RM, Ward 3C) J & S LLC**
   Build a duplex on a parcel with an existing single family home.
   (Project Manager, Mary O'Neil)

   Project was deferred to March 2, 2016.

VI. **Sketch Plan**

1. **16-0711SP; 435-441 Shelburne St (RM, Ward 5S) Mitchel Robinson**
   Sketch plan review to convert existing 12 bedroom rooming house and 2-person duplex to a 10 unit multifamily residential apartment building. (Project Manager, Scott Gustin)

   W.Senville recused.
   A.Hart – Board is here to provide feedback and will not take testimony under oath on this.
   M.Richardson - purchased property a year ago from my parents and the major agenda was to bring to it into compliance.
   S.Silla – architect, presented power point presentation before the Board showed early stages for planning and parking. Question density and parking and looking for guidance. Requesting preliminary comments from Board to convert to 10 unit residential within existing footprint providing that inclusionary housing is included.
   Objectives are to confirm density and number of units allowed, lot coverage, parking count and resident concerns.
   This is a corner lot at Lyman and Shelburne compatible for RM zoning district. Not looking for change in use. Assemblage of several parcels and right of way rear parcel. There are a cluster of residential and couple of multifamily units nearby. Showed different views of the building. All three individual parcels will change property lines. No official easement or right of usage with those parcels using the right of way for access.
   A.Hart - questions lot coverage calculations and inclusions.
   S.Silla – we are allowed 20 units per acre with inclusionary housing we are granted a 20% bonus equaling 10.3 units. Over in lot coverage and need to address this.
   M.Richardson - we are 47% lot coverage and could be 48.9% with a 10 space surface parking lot will include compact spaces as well.
   S.Gustin - standard is for 90 degree space by 24 ft. which may be flexible.
   A.J.LaRosa - looks tight.
   S.Silla - basement level is one two bedroom, second level is 1 1 to 3 bedroom and upper level 4 is single and one three bedroom. Proposing twelve parking space.
   A.Tillmark - spoke to on building massing and to keep existing structure to maintain traditional look.
   S.Silla - read staff report; one issue is the accessible path to building entry. Not planning on an elevator. Have strategies for ADA spaces that wrap around to connect to a platform.
   B.Rabinowitz – questions the grading.
   S.Silla – there is a fair amount of ramping and another will be close to Lyman as a second option. The third is directly off of Shelburne Rd. Providing one trash bin under building. We know we need outdoor lighting, landscaping, parking plan, waste management. Will be asking tenants to recyle individually.
   I.Smith - spaces near the building provide a buffer to keep cars from messing up the building.

G.Hand – questions if garage underneath is accessible? How does this work with the Casella service.
B.Rabinowitz - questionable about each unit doing their own trash given the space.
A.J.LaRosa – questions snow plowing and where does it goes could present problems.
J.Grovani – neighbor who lives near the line. He is concerned with the space, especially in the winter months when his fence is hit. Access to our backyard is the unpaved road. The space feels very tight to me and 10 or 12 cars are a concern with my property line right off of Lyman.
M.Richarson - proposing a 5' tree line.
J.Grovani - when they grow up will be on my property. The gas line is right on property line. Trash is a concern and recycling day is a concern and quietness of the area.
A.Hart - encourage all of you to talk outside of this public hearing. This is sketch plan and your point is that it's really tight on the lot.
A.Zipparo - concerns with recycling.
J.Grovani - a lot of clutter on sidewalk.
B.Rabinowitz - he has support for 10 units, maybe 9 units will work. There are issues with things being tight. Concerning the handicap unit the ramp might make it more generous.
A.Zipparo - that many units will spill into the neighborhood and cause problems.
A.Hart - very tight situation. Using the alley for lot coverage and density may not serve the numbers well and changing the character of the neighborhood.
A.J.LaRosa – this may cause irregular lot shapes and some problems.
M.Richarson - realize the lot has been out of compliance for a while and want to make it in compliance. I know this is a challenging lot.
A.Hart – expressed interest in the number of bedrooms.
M.Richardson – have 13 bedrooms now and inclusionary is my parents. With my Mom being handicap I wanted to give her a retirement home.
A.Hart – mentioned the 40% parking waiver and the need to work with staff on a parking management plan to control cars on the site.
M.Richardson – may put car share, public transport, bike racks.
A.Hart – it will be helpful to explain how parking is available and even with the snow.
M.Richardson – aesthetics is my goal.
H.Ocean – neighbor residing on Ferguson Ave is glad someone has taken an interest in house because it has been pretty run down. Traffic flow both ways into onto Fergusson.
M.Richardson – said there is zero traffic on Fergusson, but will look into it.
A.Hart - sounds like project is great and bringing back much needed housing. Looking forward to what you come back with.
A.Hart - closed public hearing at 6:37pm.
Meeting adjourned at 6:37pm.

VII. Other Business

A Deliberation Session was held by the Board after this meeting.

VIII. Adjournment

A.Hart, Chair of Development Review Board — Date: June 7, 2016

A.Wade, Planning & Zoning Clerk — Date: 4/25/16

Plans may be viewed in the Planning and Zoning Office, (City Hall, 149 Church Street, Burlington), between the hours of 8:00 a.m. and 4:30 p.m.
Participation in the DRB proceeding is a prerequisite to the right to take any subsequent appeal. Please note that ANYTHING submitted to the Planning and Zoning office is considered public and cannot be kept confidential.
This may not be the final order in which items will be heard. Please view final Agenda, at www.burlingtonvt.gov/pz/drb/agendas or the office notice board, one week before the hearing for the order in which items will be heard.

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BURLINGTON DEVELOPMENT REVIEW BOARD
Tuesday February 2, 2016
PUBLIC HEARING NOTICE

The Burlington Development Review Board will hold a meeting on **Tuesday February 2, 2016 at 5:00 p.m. in Contois Auditorium, City Hall.**

1. **16-0730CU; 1 Mill Street (NMU, Ward 1E) Catamount Holding Company**
   Change of use from warehouse/office/lab space to primary and secondary school. No site or exterior building changes.

Plans may be viewed in the Planning and Zoning Office, (City Hall, 149 Church Street, Burlington), between the hours of 8:00 a.m. and 4:30 p.m.

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Department of Planning and Zoning
149 Church Street
Burlington, VT 05401
http://www.burlingtonvt.gov/PZ/
Telephone: (802) 865-7188
(802) 865-7195 (FAX)

David E. White, AICP, Director
Meagan Tuttle, Comprehensive Planner
Jay Appleton, Senior GIS/IT Programmer/Analyst
Scott Gustin, AICP, CFM, Principal Planner
Mary O'Neil, AICP, Principal Planner
Elsie Tillotson, Department Secretary
Anita Wade, Zoning Clerk

MEMORANDUM

To: Development Review Board
From: Mary O'Neil, AICP, Principal Planner
Date: February 2, 2016
RE: ZP16-0730CU, 1 Mill Street

Note: These are staff comments only. Decisions on projects are made by the Development Review Board, which may approve, deny, table or modify any project. THE APPLICANT OR REPRESENTATIVE MUST ATTEND THE MEETING.

File: ZP16-0730CU
Location: 1 Mill Street
Zone: NMU **Ward**: 1E
Date application accepted: December 21, 2015
Applicant/ Owner: Catamount Holding Co. (Redstone)
Request: Change of use for approx.. 8000 sf: Warehouse, lab and office to primary / secondary school. (OnTop Alternative Program.)

Background:

- **Zoning Permit 13-0580CA**, replace existing loading dock with new covered entry adding landscaping, h/c ramp, mailboxes, barrier rails. Replace siding on mill tower. Replace back bulkhead entry cover. December 2012.
- **Zoning Permit 12-0758AW;** place four by eight canopy over existing river side entrance. Under canopy illumination. No signage included. February 2012.
- **Zoning Permit 11**-0944CA; changeof use from office to café, 350 square feet on first floor. No site or exterior building changes proposed. November, 2011.
- **Zoning Permit 10-0779CA;** replace existing loading dock with new covered entry. Replace existing h/c ramp, add landscaped area, define parking, install curbing. April 2010; permit expired.
- **Zoning Permit 09-738CA**; change of use from office space to place of worship. May 2009.
- **Zoning Permit 09-151CA**; partial demolition, exterior repairs, lightning protection to chimney. September 2008.
- **Zoning Permit 08-247SN**; replace existing nonconforming parallel sign with new nonconforming parallel sign. November 2007.
- **Zoning Permit 92-267**; establishment of existing twenty seat restaurant. No exterior changes or signage proposed. April 1992.

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- **Zoning Permit 81-364**; Sell, repair and fabricate jewelry in 350 sq. ft. March 1981.
- **Zoning Permit 79**-38?; Change use of Chace Mill to retail sales hardware, household supplies, building supplies. Approx. 13,000 sq. ft. Install fence enclosure. July 1979.

Overview: The application is to Change use in areas permitted for three discrete uses: Warehouse, research lab and office to school. The overall area is 8004 sq. ft. The school facilities propose to serve grades 6-12, as part of an alternative educational program within the Burlington school system. Due to the parameters of grades served, use is broken down by "School-Primary" and "School-Secondary". Student numbers is slated at 27, staffing will be 16. Hours of operation for classes are Monday through Friday, 8:30 am to 2:10 pm.

Recommendation: **Consent approval** under Conditional Use review, per the following findings and conditions:

I. <u>Findings</u>

Appendix A – Use Table

School-Primary and *School – Secondary* are Conditional Uses in the NMU Zoning District. See Section 3.5.6, below.

<u>Article 3: Applications, Permits and Project Reviews</u>

Part 3: Impact Fees

Schools would fall into the same category as "Offices and Other" within the Impact Fee schedule (as would warehouse, office and research lab), so no Impact Fees would be assessed for the change of use.

Not applicable.

Part 4: Conditional Use and Major Impact Review

Section 3.5.6 Review Criteria

(a) Conditional Use Review Standards (as adopted by City Council 8.10.2015)
Approval shall be granted only if the DRB, after public notice and public hearing, determines that the proposed conditional use and associated development shall not result in an undue adverse effect on eash of the following general standards:

1. *Existing or planned public utilities, facilities, or services are capable of supporting the proposed use in addition to the existing uses in the area.*

This is an established, developed site with service infrastructure. No negative impact is anticipated with the proposed change of use. **Affirmative finding.**

2. *The character of the area affected as defined by the purpose or purposes of the zoning district(s) within which the project is located, and specifically stated policies and standards of the municipal development Plan;*

As a Neighborhood Mixed Use District, the character of the area reflects the diverse fabric of contrasting and interdependent uses. From the Municipal Development Plan:

- *The City of Burlington will make the most effective and efficient use of existing services, buildings, utilities and facilities before adding new capacity or initiating new construction. (MDP, Community Facilities and Services Plan, Page VII-2.)*
- *Support sustainable development activities in target areas of the city including the Enterprise Community, Neighborhood Activity Centers, the Pine Street Corridor, Downtwon and the Downtown Waterfront. (Economic Development Plan, Page VI-2.)*
- *Partnerships are crucial to the execution of this [Municipal Development] Plan. Whether joint development projects, transportation management associations or merchant sponsored transportation programs, partnerships offer flexibility and additional resources to the pursuit of city goals. (Transportaion System Plan, Page V -21.)*
- *Each neighborhood school must be connected to adjacent neighborhoods by a network of sidewalks, bicycle and pedestrian paths, and foot trails to provide safe and convenient access for school children. (Transportation System Plan, Page V-18.)* **Affirmative finding.**

3. *The proposed use will not have nuisance impacts from noise, odor, dust, heat, and vibrations greater than typically generated by other permitted uses in the same zoning district;*

   This is a vibrant, energetic zoning district with a diversity of uses. Introduction of a small scale (4-5 classroom) alternative school should complement and integrate well with the existing uses. **Affirmative finding.**

4. *The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include street designations and capacity; level of service and other performance measures; access to arterial roadways; connectivitiy; transit availability; parking and access; impacts on pedestrian, bicycle and transit circulation, safety for all modes; and adequate transportation demand managegment strategies;*

   Students are proposed to be transported via City bus, 2 yellow schoolbuses, taxi, or limited personal (parental) vehicle. The building is linked to the existing street network with its complement of roads, sidewalks, paths, bikelanes and public transit routes. **Affirmative finding.**

   and

5. *The utilization of renewable energy resources;*

   As a change of use request, this standard is not applicable.

   and

6. *Any standards or factors set forth in existing City bylaws and city and state ordinances.*

   Requirements relative to other standards will be conditions of approval. **Affirmative finding as conditioned.**

(c) Conditions of Approval

In addition to imposing conditions of approval necessary to satisfy the General Standards specified in (a) or (b) above, the DRB may also impost additional conditions of approval relative to any of the following:

1. *Mitigation measures, including but not limited to screening, landscaping, where necessary to reduce noise and glare and to maintain the property in a character in keeping with the surrounding area;*

   As a change of use with no further development proposed, mitigation or screening is not applicable to the request.

2. *Time limits for construction.*

   Not applicable.

3. *Hours of operation and/or construction to reduce the impact on surrounding properties.*

   Classes are proposed to be conducted from 8:30 a.m. to 2:10 p.m. Staff will arrive approximately 7:30 a.m. The proposed hours of operation are not contrary to a typical work day, and therefore will not introduce negative impacts to the surrounding properties and uses. **Affirmative finding.**

4. *That any future enlargement or alteration of the use return for review to the DRB to permit the specifying of new conditions,*

   Expansion of a Condional Use will require review under the standards in effect at that time. **Affirmative finding as conditioned.**

   and

5. *Such additional reasonable performance standards, conditions and safeguards as it may deem necessary to implement the purposes of this chapter and the zoning regulations.*

   This is at the discretion of the Board.

<u>Article 4: Zoning Maps and Districts</u>

Section 4.4.2

(a)Purpose: The Neighborhood Mixed Use districts promote development that combines non-residential and residential uses on a single site. These zones allow an increased intensity of development that would typically be found in the surrounding residential areas, and provides neighborhood oriented goods and services and employment opportunities within walking distrance. This development type will support transit use, prvode a buffer between busy streets and residential neighborhoods, and provide new commercial and residential opportunites in the City.

2. The Neighborhood Mixed Use district is intended to preserve and enhance historically commercial areas while reinforcing the compact scale and developemtn patterns withint he city's older neighborhoods. Uses are intended to provide neighborhood oriented goods and services and employment opportunites within walking or biking distrance of residential neighborhoods.

The proposed small-scale educational use would provide services for area school children in need of specialized and individualized educational plans; employment opportunities would be delivered by the staff of 16. In this manner, the change of use is consistent with the purpose of the zoning district. **Affirmative finding.**

(b)Dimensional Standards and Density

This is an existing, developed site. Not applicable.

(c) Permitted and Conditional uses

School – Primary and *School – Secondary* are Conditional Uses in the NMU zoning district. See Section 3.5.6, above.

(d) District Specific Regulations

1. *Ground floor residential uses restricted*

   Not applicable.

2. *Exception to maximum lot coverage in NAC.*

   Not applicable.

3. *Development Bonuses/Additional Allowances*

   Not applicable.

<u>Article 5: Citywide General Regulations</u>

Part 1: Uses and Structures

d) Conditional Uses

Such uses may be permitted by the DRB only after review under the conditional use prvisions provided in Article 3, Part 5, such further restrictions as the DRB may establish and such additional requirements as intensity limitations, performance and design standards, and parking requirements.

See Section 3.5.6 and Article 8.

Part 5: Performance Standards

Section 5.5.1 Nuisance Regulations

No identifiable conflicts or introduction of nuisance are associated with the proposed change of use. **Affirmative finding.**

<u>Article 7: Signs</u>

No signs are included within this project review. Any signs will require separate permitting. **Affirmative finding as conditioned.**

<u>Article 8: Parking</u>

Parking requirement per Table 8.1.8-1 for the proposed use(s) are as follows:
School –Primary: 1.5 parking spaces per classroom
School – Secondary: 2 parking spaces per classroom
5 classrooms are proposed; 1 classroom for middle school students (primary) and 3 classrooms for 9-12 students (secondary). A fifth classroom has been proposed for rotation of teaching material (English, math, science, social studies, careers.)
1 x 1.5 = 2; 3 x 5 = 15 for a total parking requirement of **17 parking spaces**.

The current uses have the following parking requirements:
Warehouse (3127 sf.) .35 parking spaces per 1,000 sf; total 3 parking spaces.
Research Lab (734 sf.) 2 parking spaces per 1,000 sf; 1 parking space.

Office (4143 sf.) 2 per 1,000 sf, total 8 parking spaces for a total of **12 parking spaces** for existing uses.
The applicant has provided a parking assignment plan, noting that there are 191 parking spaces on-site, with 171 assigned to uses. The additional 5 parking spaces required for the school use can be accommodated on site, particularly within this 20 space surplus.
It is notable that transportation for the students will be accommodated by alternative methods, from public bus, school bus, cab and personal vehicle when necessary.
Affirmative finding.

II. Conditions of Approval

1. Any signs will require separate permit review.
2. Any future enlargement or alteration of the use will require return for review to the DRB to permit the specifying of new conditions.
3. Standard Permit Conditions 1-15.

NOTE: These are staff comments only. The Development Review Board, who may approve, table, modify, or deny projects, makes decisions.

Redstone

Brokerage Services
Development
Property Management
Construction

Date: 12/21/2015

To: City of Burlington
Planning and Zoning

From: Linda I. Letourneau
REDSTONE
658-7400 x 17
343-2107

Re: Change of use at Chace Mill

Dear Planning and Zoning-

This is a request for a change of use from Warehouse/office and lab to School.

On Top Alternative Program is interested in joining us at the Chace Mill. They are an alternative Burlington School program. The number of students is slated at 27 and the grades are 6-12 th grade. The number of staff will be 16, and the hours of operation for classes are Monday thru Friday 830 am to 210 pm. Staff will arrive approx. 730 am and leave by 4 pm. Students will arrive by 2 -City buses, 2 Yellow buses, cab and some parent drop off.

If you have any questions, please feel free to contact me. 3432107 or lletourneau@redstonevt.com

Thank you,

Linda Letourneau

Google earth

feet 100
meters 60

RECEIVED
DEC 21 2015
DEPARTMENT OF
PLANNING & ZONING

Mary O'Neil

From: Linda Letourneau <lletourneau@redstonevt.com>
Sent: Thursday, January 21, 2016 3:30 PM
To: Mary O'Neil
Subject: RE: 1 Mill Street

Mary I asked the prospective tenant your question... see below.

Hi-
The students change classrooms for different subjects so they will be in all 5 classrooms at least one day (English, math , science, social studies, careers).The number of students in each grade varies from year to year depending on who gets referred but it looks like it will be

1 classroom of middle school students grades 7-8 with 6 students
1 classroom of grade 9-10 with 7 students
2 classrooms of grade 11-12 with 7 students in each classroom

Is this specific enough?

Lynn

Linda I Letourneau
REDSTONE
Brokerage . Property Management . Development
Office: 802-658-7400 x 17
Cell: 802-343-2107
www.redstonevt.com
Vermont Mandatory Disclosure

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From: Mary O'Neil [mailto:MCOneil@burlingtonvt.gov]
Sent: Thursday, January 21, 2016 2:50 PM
To: Linda Letourneau
Subject: RE: 1 Mill Street

Hi Linda,
I have to break the parking calculation down by school/primary, school/secondary, and school/trade. With grades 6-1 it looks like a mix of primary/secondary. Are you able to sort the number of classrooms for each?

Thanks again,
M

From: Linda Letourneau [mailto:lletourneau@redstonevt.com]
Sent: Thursday, January 21, 2016 12:14 PM

To: Mary O'Neil
Subject: RE: 1 Mill Street

Hi Mary, I hope you are well.

There are 5 classrooms approx. ranging in size from 425 SF to 500 SF
There are 27 students and 16 staff. Grade 6-12
This is a specialized school called ON TOP (below is there website)
http://ontop.bsdvt.org/

thank you,

Linda I Letourneau
REDSTONE
Brokerage . Property Management . Development
Office: 802-658-7400 x 17
Cell: 802-343-2107
www.redstonevt.com
Vermont Mandatory Disclosure

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From: Mary O'Neil [mailto:MCOneil@burlingtonvt.gov]
Sent: Thursday, January 21, 2016 12:08 PM
To: Linda Letourneau
Subject: 1 Mill Street

Hi Linda,
Can you provide me with more information about the type of school proposed for 1 Mill Street? Primary, secondar trade, professional, etc?
I will need the number of classrooms to determine the parking requirement.

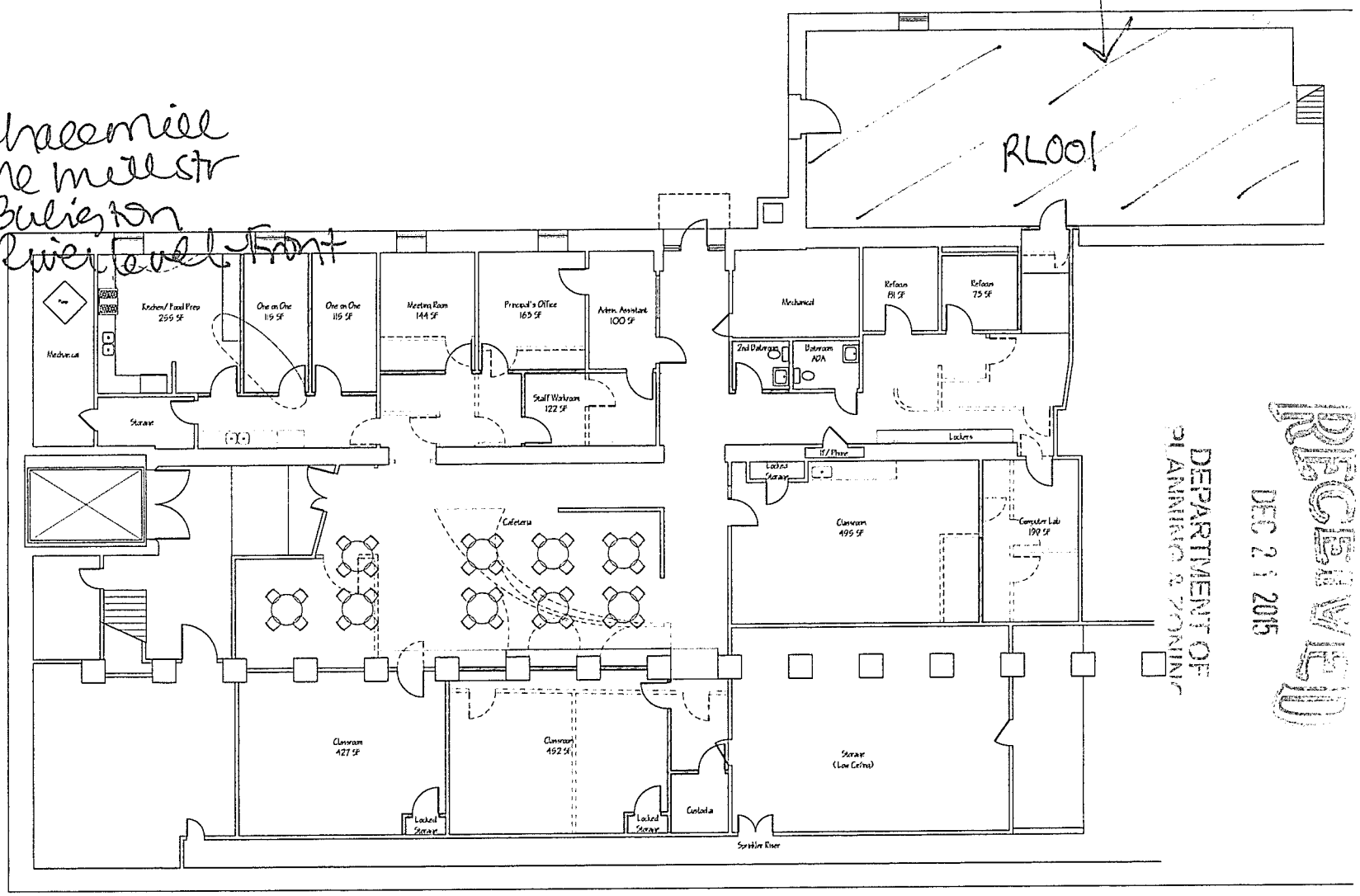
Thanks!

Mary

Mary O'Neil, AICP
Principal Planner
Coordinator, Certified Local Government Program
mconeil@burlingtonvt.gov
802.865.7556 direct

Approx 1600 SF +/-
Change of use
storage to School

Charemill
one mile str
Bulington
River level front



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1 River Level Plan

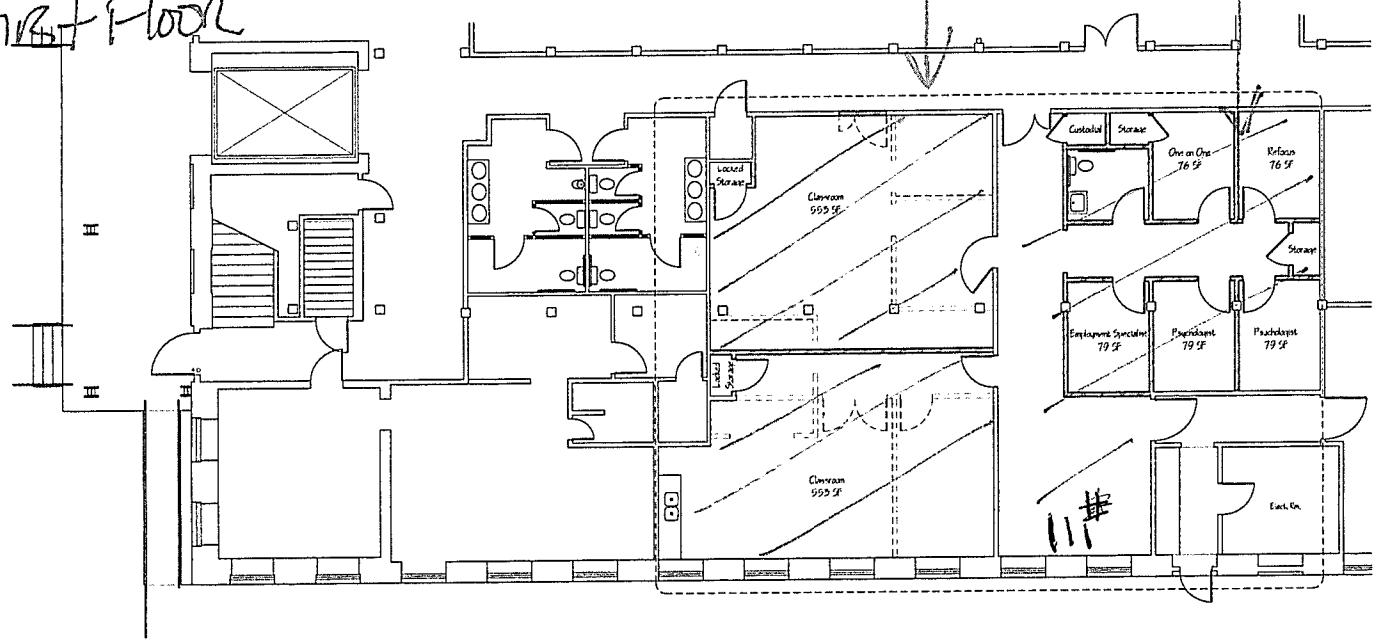
Scale: 3/16" = 1'-0"

On Top Alternate programs

Chace Mill
One Mill Str
Burlington
First Floor

Approx 1100 SF Net
Change of use
Warehousing/manf/office
TO
Classroom/School

Approx 1000 SF Net
Change of use
Warehouse to
Office/School



1 Main Level Plan

Scale: 3/16" = 1'-0"

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11/10/2011
Revised 12/21/2015

CHACE MILL
1 Mill Street, Burlington

Use: HEALTH STUDIO		**gross sf**	**net sf**	**Parking Spaces**
dance studio/yoga studio	123 Pilates/Dance	2334	1937	
health/expression/yoga	Whats Alive Inside	1266	1051	
yoga studio	Laughing River Yoga	1296	1076	
TOTAL Health Studio 2 per		4896		9.792
USE: SALON/SPA		GSF		
salon	Bello Hair	1251	1038	
TOTAL SALON/SPA 4 per		1251		5.004
USE: RESEARCH LAB		GSF		
lab	GMA	1030	855	
lab	**Urban Moonshine**	**734**	**609**	1 space
lab	Flashbags	738	612	
lab	89 north	1455	1753	
lab	116- gma	1170	971	
TOTAL LAB 2.5 per		5127		12.8175
USE: OFFICE		GSF		
office	89 north	2242	1861	
office	GMA	1803	1666	
office	GMA expansion space	1169	970	
office	**Urban Moonshine**	**733**	**609**	1 space
office	Flashbags	739	613	
office	Adv Apprasial	1053	874	
office	Anabasis	269	223	
office	Balfour	800	664	
office	Bayada	1759	1460	
office	Brownledge	771	640	
office	Carol Keinwohl	737	612	
office	Data Systems	553	459	
office	Delaney	2945	2444	
office	Mallik	134	111	
office	ESP Trans	965	801	
office	Ind Tax	731	607	
office	ISIS- vacant	4944	4104	

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office	Jade Mountain	984	817	
office	John Donahue	275	228	
office	John Penoyar	383	318	
office	Horroks	181	150	
office	Nelson Parker Photography	461	383	
office	Neuromuscular Therapy of VT	461	383	
office	Outpost	304	252	
office	PKC	21858	18142	
office	Ramsy Gourd	304	252	
office	RGIS	292	242	
office	Whats Alive Inside	307	255	
office	Osaba	165	137	
office	Sam Standard	480	398	
office	Third Eye	473	393	
office	Tupelo	986	818	
office	Turnstone	1422	1180	
office	Vitl	1076	893	
office	Can Paint	304	252	
office	Cat Trail	1117	927	
office	Creative Women	761	632	
office	Vicki Fraser	588	488	
office	**TSYF**	**3410**	**2830**	7 spaces
office	vacant -167 office	254	211	
office	vacant -179 office	237	197	
office	vacant-206- office	480	398	
office	vacant- 216/222-office	1028	853	
office	vacant-264-office	822	682	
office	vacant-278-office	1563	1297	
office	vacant-301-office	1027	852	
office	vacant-329-office	395	328	
TOTAL OFFICE Gen/1000 x 2 =		64745		129.49
USE: School Primary		GSF		
educational	TSYF	3410	2830	
TOTAL SCHOOL/1000 x 1.5		3410		5.115

USE: WAREHOUSE		GSF		
	vacant-111 flex/warehouse	**1288**	**1069**	
storage	89 N	170	141	

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storage	Cat Trail	155	129	
storage	Creative Women	95	79	
storage	Vicki Fraser	588	488	
storage	vacant-196 A- storage	463	384	
storage	vacant-196 C-storage	306	254	
storage	vacant-198- storage	2473	2053	
dead storage	**vacant-RL001- storage**	**1839**	**1526**	
dead storage	vacant- RL43- storage	619	514	
TOTAL WAREHOUSE/1000 x .5		7996		3.998

USE: CAFÉ

		GSF		
café	138- café	421	350	4
Total CAFÉ 1 per 4 seats		16 seats		4

		GSF		
Use Health Studio		4896		10
Use Salon/Spa		1251		5
Use Research Lab		5127		13
Use Office		64745		130
Use Warehouse		7996		4
Use Classroom		3410		5
Café				4
added use Classroom/School 12/2015		**8004**		**12**
adjusted warehouse to school		***3127***		***-1.56***
adjusted research lab to school		***734***		***-2***
adjusted office to school		***4143***		***-8.28***
	GSF	**87425**		
	TOTAL Parking spaces			**171**
	We need:			**171**
We have :	135 paved			
	56 dirt lot at the rear			
	191 total			

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LEGEND

- APPROXIMATE PROPERTY LINE
- APPROXIMATE SETBACK LINE
- EXISTING CONTOUR
- EXISTING CURB
- EXISTING CHAINLINK FENCE
- EXISTING WIRE FENCE
- EXISTING GRAVEL
- EXISTING PAVEMENT
- EXISTING GUARD RAIL
- EXISTING ELECTRIC
- EXISTING FORCEMAIN
- EXISTING GAS
- EXISTING STORM
- EXISTING GRAVITY SEWER
- EXISTING TELEPHONE
- EXISTING WATER
- EXISTING SWALE
- EXISTING SEWER MANHOLE
- EXISTING STORM MANHOLE
- EXISTING CATCH BASIN
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING SHUT OFF
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING GUY WIRE/POLE
- EXISTING SIGN
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- EDGE OF BRUSH/WOODS
- IRON ROD/PIPE FOUND
- CONCRETE MONUMENT FOUND
- RAILROAD RAIL FOUND
- TEST PIT
- PROJECT BENCHMARK

NOTES

1. UTILITIES SHOWN DO NOT PURPORT TO CONSTITUTE OR REPRESENT ALL UTILITIES LOCATED UPON OR ADJACENT TO THE SURVEYED PREMISES. EXISTING UTILITY LOCATIONS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CONFLICTS. ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER. THE CONTRACTOR SHALL CONTACT DIG SAFE (888-344-7233) PRIOR TO ANY CONSTRUCTION.
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5. THIS PROPERTY LAYS WITHIN THE WATERFRONT RESIDENTIAL MEDIUM DENSITY ZONING DISTRICT AND THE NATURAL RESOURCES PROTECTION OVERLAY DISTRICT.

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

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SITE ENGINEER:

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802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

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CHECKED: SAV
APPROVED: SAV

OWNER:

BURLINGTON COLLEGE

351 NORTH AVE
BURLINGTON VERMONT
05401

PROJECT:

BUILDING RENOVATION AND SITE IMPROVEMENTS 329, 351 NORTH AVE.

BURLINGTON, VT

LOCATION MAP
1" = 2000'

DATE	CHECKED	REVISION
12/18/15	SAV	LOCAL PLAN SUBMITTAL

EXISTING CONDITIONS OVERALL SITE PLAN

DATE: 12/18/2015
SCALE: 1" = 100'
PROJ. NO. 14215
DRAWING NUMBER: C1.0

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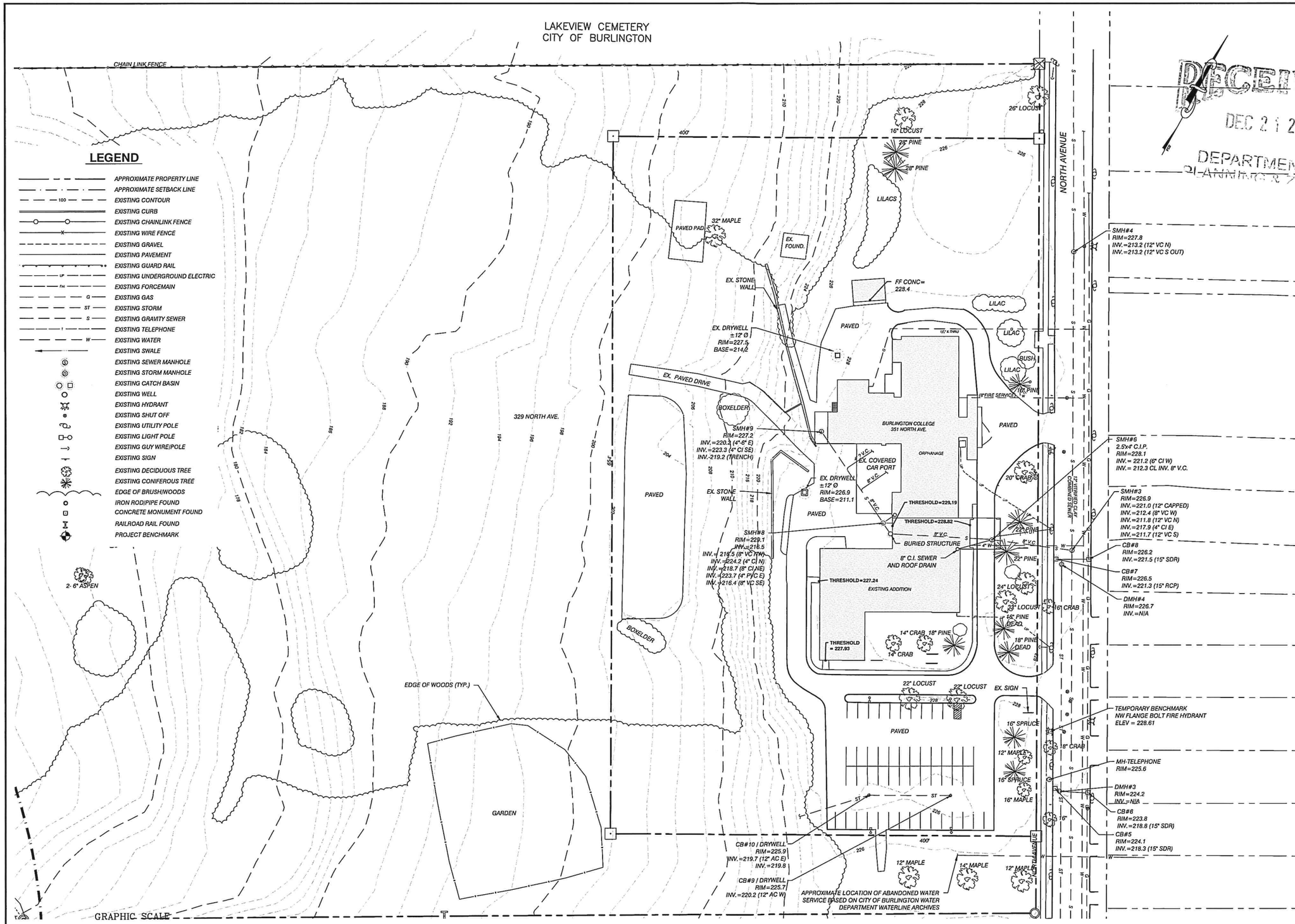

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BURLINGTON COLLEGE

351 NORTH AVE
BURLINGTON VERMONT
05401

PROJECT:

BUILDING RENOVATION AND SITE IMPROVEMENTS 329, 351 NORTH AVE.

BURLINGTON, VT

LOCATION MAP
1" = 2000'

DATE	CHECKED	REVISION
12/18/15	SAV	LOCAL PLAN SUBMITTAL

EXISTING CONDITIONS SITE PLAN

DATE: 12/18/2015
SCALE: 1" = 40'
PROJ. NO.: 14215
DRAWING NUMBER: C1.1

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LEGEND

- APPROXIMATE PROPERTY LINE
- APPROXIMATE SETBACK LINE
- EXISTING CONTOUR
- EXISTING CURB
- EXISTING CHAINLINK FENCE
- EXISTING WIRE FENCE
- EXISTING GRAVEL
- EXISTING PAVEMENT
- EXISTING GUARD RAIL
- EXISTING UNDERGROUND ELECTRIC
- EXISTING FORCEMAIN
- EXISTING GAS
- EXISTING STORM
- EXISTING GRAVITY SEWER
- EXISTING TELEPHONE
- EXISTING WATER
- EXISTING SWALE
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- EDGE OF BRUSH/WOODS
- IRON ROD/PIPE FOUND
- CONCRETE MONUMENT FOUND
- RAILROAD RAIL FOUND
- PROJECT BENCHMARK
- PROPOSED CONTOUR
- PROPOSED CURB
- PROPOSED FENCE
- PROPOSED GRAVEL
- PROPOSED PAVEMENT
- PROPOSED GUARD RAIL
- PROPOSED ELECTRIC
- PROPOSED FORCEMAIN
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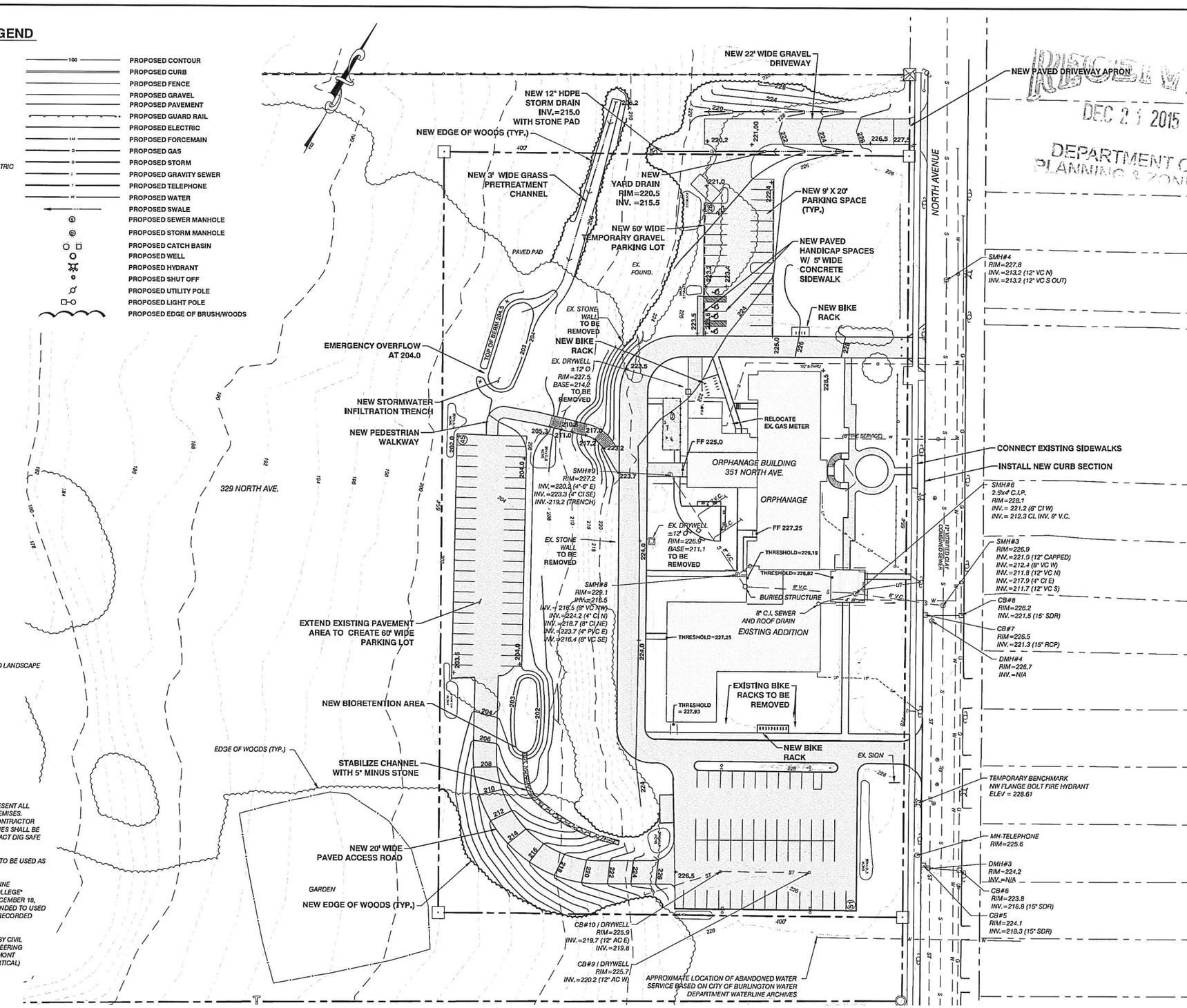
- PROPOSED UTILITY POLE
- PROPOSED LIGHT POLE
- PROPOSED EDGE OF BRUSH/WOODS



PLAN NOTES :

1. REFER TO LANDSCAPE ARCHITECTURAL PLANS FOR PROPOSED LANDSCAPE MATERIALS, LIGHTING, AND PLANTING PLAN.

NOTES

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GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

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BURLINGTON VERMONT
05401

PROJECT:

BUILDING RENOVATION AND SITE IMPROVEMENTS
329, 351 NORTH AVE.

BURLINGTON, VT

LOCATION MAP
1" = 2000'

DATE	CHECKED	REVISION
12/18/15	SAV	LOCAL PLAN SUBMITTAL

PROPOSED SITE, GRADING & DRAINAGE PLAN

DATE: 12/18/2015
SCALE: 1" = 40'
PROJ. NO.: 14215
DRAWING NUMBER: C2.0

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EROSION CONTROL NOTES

1. Contact City of Burlington DPW Stormwater administrator at least 24 hours prior to start of construction activity (802) 540-1748.

2. Install erosion and sediment control measures prior to earth disturbance. Erosion control measures shall be inspected and repaired daily in order to minimize the discharge of sediment to the City drainage system. Maintain sediment controls until site is fully stabilized.

3. The access points to the project and nearby portions of surrounding City streets shall be inspected daily and prior to forecast precipitation events. Sediment deposited by vehicle tracking shall be removed by sweeping as needed and prior to forecast precipitation.

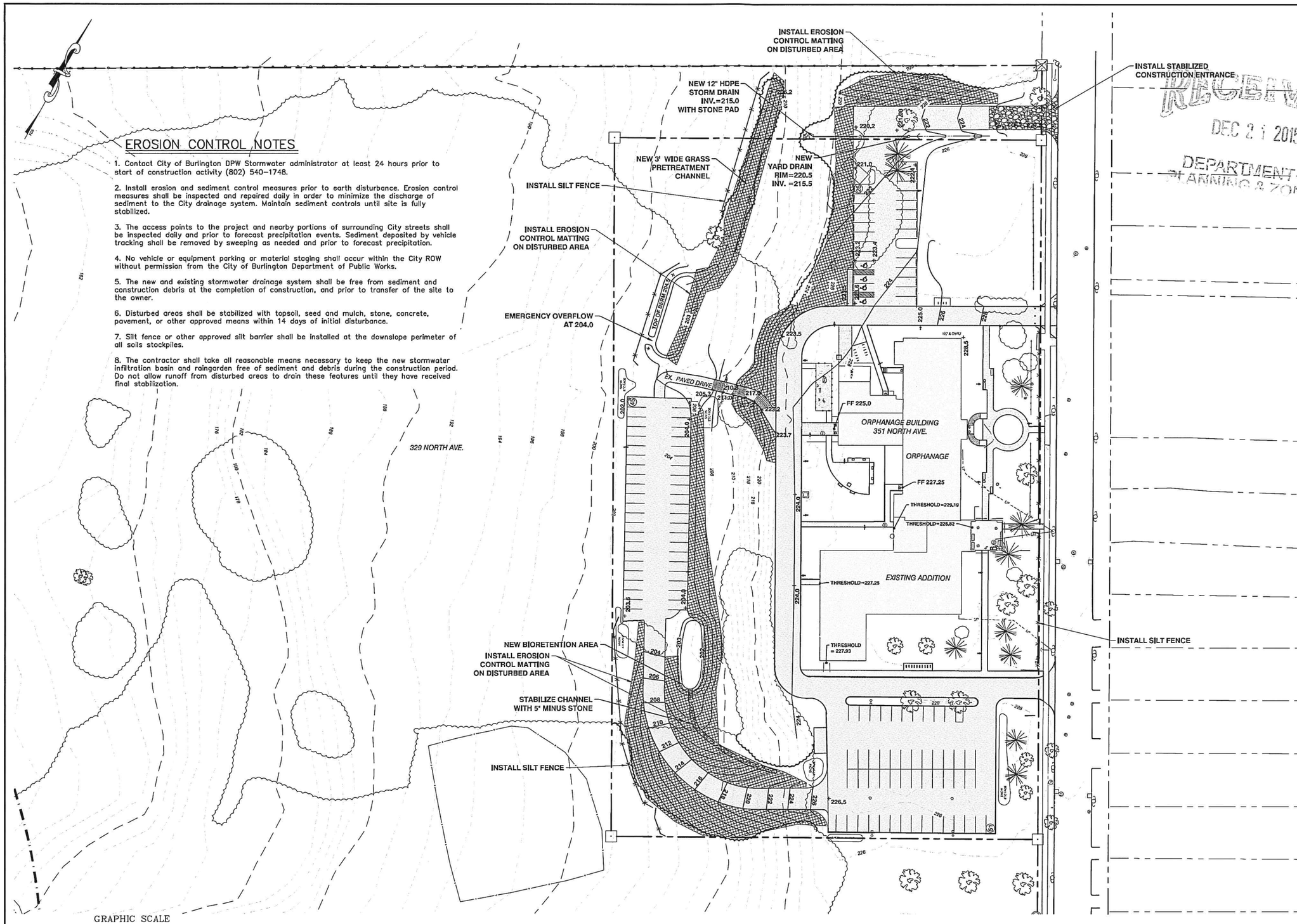
4. No vehicle or equipment parking or material staging shall occur within the City ROW without permission from the City of Burlington Department of Public Works.

5. The new and existing stormwater drainage system shall be free from sediment and construction debris at the completion of construction, and prior to transfer of the site to the owner.

6. Disturbed areas shall be stabilized with topsoil, seed and mulch, stone, concrete, pavement, or other approved means within 14 days of initial disturbance.

7. Silt fence or other approved silt barrier shall be installed at the downslope perimeter of all soils stockpiles.

8. The contractor shall take all reasonable means necessary to keep the new stormwater infiltration basin and raingarden free of sediment and debris during the construction period. Do not allow runoff from disturbed areas to drain these features until they have received final stabilization.



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351 NORTH AVE
BURLINGTON VERMONT
05401

PROJECT:
BUILDING RENOVATION AND SITE IMPROVEMENTS 329, 351 NORTH AVE.
BURLINGTON, VT

LOCATION MAP
1" = 2000'

DATE	CHECKED	REVISION
12/18/15	SAV	LOCAL PLAN SUBMITTAL

EROSION CONTROL PLAN

DATE 12/18/2015
SCALE 1" = 40'
PROJ. NO. 14215
DRAWING NUMBER C3.0

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Introduction

This project is subject to the terms and conditions of the authorization from the State of Vermont to discharge construction related storm water runoff.

Coverage under the State Construction General Permit 3-9020 is required for any construction activity that disturbs 1 or more acres of land, or is part of a larger development plan that will disturb 1 or more acres.

This project has been deemed to qualify as a Low Risk Site which is subject to the erosion prevention and sediment control (EPSC) standards set for in the State of Vermont's
Low Risk Site Handbook for Erosion Prevention and Sediment Control

The following narrative and implementation requirements represent the minimum standard for which this site is required to be maintained as regulated by the State of Vermont.

Any best management practices (BMP's) depicted on the project's EPSC Site plan which go beyond the Handbook requirements are considered to be integral to the management of the site and represent components of the municipal EPSC approval for the project which shall be implemented.

The EPSC plan depicts one snap shot in time of the site. All construction sites are fluid in their day to day exposures and risks as it relates to minimizing sediment loss from the site. **It is the responsibility of the Contractor to implement the necessary BMP's to comply with the Low Risk Handbook standards outlined on this sheet based on the interim site disturbance conditions which may or may not be shown on the EPSC Site Plan.**

Specific BMP's which are critical to allowing the project to be considered a Low risk site include the items checked below:

- Limit the amount of disturbed earth to two acres or less at any one time.
- There shall be a maximum of 7 consecutive days of disturbed earth exposure in any location before temporary or final stabilization is implemented.

1. Mark Site Boundaries

Purpose:
Mark the site boundaries to identify the limits of construction. Delineating your site will help to limit the area of disturbance, preserve existing vegetation and limit erosion potential on the site.

How to comply:
Before beginning construction, walk the site boundaries and flag trees, post signs, or install orange safety fence. Fence is required on any boundary within 50 feet of a stream, lake, pond or wetland, unless the area is already developed (existing roads, buildings, etc.)

2. Limit Disturbance Area

Purpose:
Limit the amount of soil exposed at one time to reduce the potential erosion on site.

Requirements:
The permitted disturbance area is specified on the site's written authorization to discharge. Only the acreage listed on the authorization form may be exposed at any given time.

How to comply:
Plan ahead and phase the construction activities to ensure that no more than the permitted acreage is disturbed at one time. Be sure to properly stabilize exposed soil with seed and mulch or erosion control matting before beginning work in a new section of the site.

3. Stabilize Construction Entrance

Purpose:
A stabilized construction entrance helps remove mud from vehicle wheels to prevent tracking onto streets.

Requirements:
If there will be any vehicle traffic off of the construction site, you must install a stabilized construction entrance before construction begins.

How to Install
Rock Size: Use a mix of 1 to 4 inch stone
Depth: 8 inches minimum
Width: 12 feet minimum
Length: 40 feet minimum (or length of driveway, if shorter)
Geotextile: Place filter cloth under entire gravel bed

Maintenance:
Redress with clean stone as required to keep sediment from tracking onto the street.

4. Install Silt Fence

Purpose:
Silt fences intercept runoff and allow suspended sediment to settle out.

Requirements:
Silt fence must be installed:
- on the downhill side of the construction activities
- between any ditch, swale, storm sewer inlet, or waters of the State and the disturbed soil

** Hay bales must not be used as sediment barriers due to their tendency to degrade and fall apart.*

Where to place:
- Place silt fence on the downhill edge of bare soil. At the bottom of slopes, place fence 10 feet downhill from the end of the slope (if space is available).
- Ensure the silt fence catches all runoff from bare soil.
- Maximum drainage area is ¼ acre for 100 feet of silt fence.
- Install silt fence across the slope (not up and down hills!)
- Install multiple rows of silt fence on long hills to break up flow.
- Do not install silt fence across ditches, channels, or streams or in stream buffers.

How to Install silt fence:
- Dig a trench 6 inches deep across the slope
- Unroll silt fence along the trench
- Ensure stakes are on the downhill side of the fence
- Join fencing by rolling the end stakes together
- Drive stakes in against downhill side of trench
- Drive stakes until 16 inches of fabric is in trench
- Push fabric into trench; spread along bottom
- Fill trench with soil and pack down

Maintenance:
- Remove accumulated sediment before it is halfway up the fence.
- Ensure that silt fence is trenched in ground and there are no gaps.

5. Divert Upland Runoff

Purpose:
Diversion berms intercept runoff from above the construction site and direct it around the disturbed area. This prevents clean water from becoming muddied with soil from the construction site.

Requirements:
If storm water runs onto your site from upslope areas and your site meets the following two conditions, you must install a diversion berm before disturbing any soil.
1. You plan to have one or more acres of soil exposed at any one time (excluding roads).
2. Average slope of the disturbed area is 20% or steeper.

How to Install:
1. Compact the berm with a shovel or earth-moving equipment.
2. Seed and mulch berm or cover with erosion control matting immediately after installation.
3. Stabilize the flow channel with seed and straw mulch or erosion control matting. Line the channel with 4 inch stone if the channel slope is greater than 20%.
4. Ensure the berm drains to an outlet stabilized with riprap. Ensure that there is no erosion at the outlet.
5. The diversion berm shall remain in place until the disturbed areas are completely stabilized.

6. Slow Down Channelized Runoff

Purpose:
Stone check dams reduce erosion in drainage channels by slowing down the storm water flow.

Requirements:
If there is a concentrated flow (e.g. in a ditch or channel) of storm water on your site, then you must install stone check dams. Hay bales must not be used as check dams.

How to Install:
Height: No greater than 2 feet. Center of dam should be 9 inches lower than the side elevation
Side slopes: 2:1 or flatter
Stone size: Use a mixture of 2 to 9 inch stone
Width: Dams should span the width of the channel and extend up the sides of the banks
Spacing: Space the dams so that the bottom (toe) of the upstream dam is at the elevation of the top (crest) of the downstream dam. This spacing is equal to the height of the check dam divided by the channel slope.
Spacing (in feet) = Height of check dam (in feet)/Slope in channel (ft/ft)

Maintenance:
Remove sediment accumulated behind the dam as needed to allow channel to drain through the stone check dam and prevent large flows from carrying sediment over the dam. If significant erosion occurs between check dams, a liner of stone should be installed.

7. Construct Permanent Controls

Purpose:
Permanent storm water treatment practices are constructed to maintain water quality, ensure groundwater flows, and prevent downstream flooding. Practices include detention ponds and wetlands, infiltration basins, and storm water filters.

Requirements:
If the total impervious* area on your site, or within the common plan of development, will be 1 or more acres, you must apply for a State Storm water Discharge Permit and construct permanent storm water treatment practices on your site. These practices must be installed before the construction of any impervious surfaces.

How to comply:
Contact the Vermont Storm water Program and follow the requirements in the Vermont Storm water Management Manual. The Storm water Management Manual is available at:
www.vtwaterquality.org/stormwater.htm
*An impervious surface is a manmade surface, including, but not limited to, paved and unpaved roads, parking areas, roofs, driveways, and walkways, from which precipitation runs off rather than infiltrates.

8. Stabilize Exposed Soil

Purpose:
Seeding and mulching, applying erosion control matting, and hydroseeding are all methods to stabilize exposed soil. Mulches and matting protect the soil surface while grass is establishing.

Requirements:
All areas of disturbance must have temporary or permanent stabilization within 7, 14, or 21 days of initial disturbance, as stated in the project authorization. After this time, any disturbance in the area must be stabilized at the end of each work day.

The following exceptions apply:

- Stabilization is not required if earthwork is to continue in the area within the next 24 hours and there is no precipitation forecast for 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 feet or greater (e.g. house foundation excavation, utility trenches).

All areas of disturbance must have permanent stabilization within 48 hours of reaching final grade.

How to comply:
Prepare bare soil for seeding by grading the top 3 to 6 inches of soil and removing any large rocks or debris.

Seeding Rates for Temporary Stabilization
April 15 - Sept. 15 — Ryegrass (annual or perennial): 20 lbs/acre)
Sept. 15 - April 15 — Winter rye: 120 lbs/acre

Seeding Rates for Final Stabilization:Choose

Seeding Rates for Final Stabilization:			
Choose from:	Variety	lbs./acre	lbs./1000 sq.ft.
Birds-foot trefoil	Empire/Pardee	51	0.1
or			
Common white clover	Common	8	0.2
plus			
Tall Fescue	KY-31/Rebel	10	0.25
plus			
Redtop	Common	2	
or			
Ryegrass (perennial)	Pennfine/Linn	5	0.1

1- Mix 2.5 each of Empire and Pardee OR 2.5 lbs. of Birds foot and 2.5 lbs. white clover per acre

Mulching Rates
April 15 - Sept.15 -- Hay or Straw: 1 inch deep (1-2 bales/1000 s.f.)
Sept.15 - April 15 -- Hay or Straw: 2 in. deep (2-4 bales/1000 s.f.)

Erosion Control Matting
As per manufacturer's instructions

Hydroseed
As per manufacturer's instructions

9. Winter Stabilization

Purpose:
Managing construction sites to minimize erosion and prevent sediment loading of waters is a year-round challenge. In Vermont, this challenge becomes even greater during the late fall, winter, and early spring months.
'Winter construction' as discussed here, describes the period between October 15 and April 15, when erosion prevention and sediment control is significantly more difficult.
Rains in late fall, thaws throughout the winter, and spring melt and rains can produce significant flows over frozen and saturated ground, greatly increasing the potential for erosion.

Requirements for Winter Shutdown:
For those projects that will complete earth disturbance activities prior to the winter period (October 15), the following requirements must be adhered to:
1. For areas to be stabilized by vegetation, seeding shall be completed no later than September 15 to ensure adequate growth and cover.
2. If seeding is not completed by September 15, additional non-vegetative protection must be used to stabilize the site for the winter period. This includes use of Erosion Control Matting or netting of a heavy mulch layer. Seeding with winter rye is recommended to allow for early germination during wet spring conditions.
3. Where mulch is specified, apply roughly 2 inches with an 80-90% cover. Mulch should be tracked in or stabilized with netting in open areas vulnerable to wind.

Requirements for Winter Construction
If construction activities involving earth disturbance continue past October 15 or begin before April 15, the following requirements must be adhered to:
1. Enlarged access points, stabilized to provide for snow stockpiling.
2. Limits of disturbance moved or replaced to reflect boundary of winter work.
3. A snow management plan prepared with adequate storage and control of meltwater, requiring cleared snow to be stored down slope of all areas of disturbance and out of storm water treatment structures.
4. A minimum 25 foot buffer shall be maintained from perimeter controls such as silt fence.
5. In areas of disturbance that drain to a water body within 100 feet, two rows of silt fence must be installed along the contour.
6. Drainage structures must be kept open and free of snow and ice dams.
7. Silt fence and other practices requiring earth disturbance must be installed ahead of frozen ground.
8. Mulch used for temporary stabilization must be applied at double the standard rate, or a minimum of 3 inches with an 80-90% cover.
9. 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 foundations or open utility trenches.
10. Prior to stabilization, snow or ice must be removed to less than 1 inch thickness.
11. 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 to 20 feet wide to accommodate vehicular traffic.

10. Stabilize Soil at Final Grade

Purpose:
Stabilizing the site with seed and mulch or erosion control matting when it reaches final grade is the best way to prevent erosion while construction continues.

Requirements:
Within 48 hours of final grading, the exposed soil must be seeded and mulched or covered with erosion control matting.

How to comply:
Bring the site or sections of the site to final grade as soon as possible after construction is completed. This will reduce the need for additional sediment and erosion control measures and will reduce the total disturbed area.
For seeding and mulching rates, follow the specifications under Rule 8, Stabilizing Exposed Soil.

11. Dewatering Activities

Purpose:
Treat water pumped from dewatering activities so that it is clear when leaving the construction site.

Requirements:
Water from dewatering activities that flows off of the construction site must be clear. Water must not be pumped into storm sewers, lakes, or wetlands unless the water is clear.

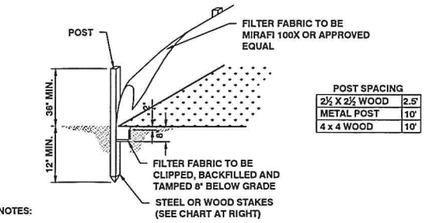
How to comply:
Using sock filters or sediment filter bags on dewatering discharge hoses or pipes, discharge water into silt fence enclosures installed in vegetated areas away from waterways. Remove accumulated sediment after the water has dispersed and stabilize the area with seed and mulch.

12. Inspect Your Site

Purpose:
Perform site inspections to ensure that all sediment and erosion control practices are functioning properly. Regular inspections and maintenance of practices will help to reduce costs and protect water quality.

Requirements:
Inspect the site at least once every 7 days and after every rainfall or snow melt that results in a discharge from the site. Perform maintenance to ensure that practices are functioning according to the specifications outlined in this handbook.

In the event of a noticeable sediment discharge from the construction site, you must take immediate action to inspect and maintain existing erosion prevention and sediment control practices. Any visibly discolored storm water runoff to waters of the State must be reported. Forms for reporting discharges are available at:
www.vtwaterquality.org/stormwater.htm



POST SPACING	
2½ X 2½ WOOD	2.5'
METAL POST	10'
4 x 4 WOOD	10'

NOTES:

1. INSTALL MIRIFI ENVIROFENCE, OR APPROVED EQUAL OR AS DETAILED HEREIN.
2. INSTALL SILT FENCES AT TOES OF ALL UNPROTECTED SLOPES AND AS PARALLEL TO CONTOURS AS POSSIBLE. THIS INCLUDES ALL FILLED OR UNPROTECTED SLOPES CREATED DURING CONSTRUCTION, NOT NECESSARILY REFLECTED ON THE FINAL PLANS. CURVE THE ENDS OF THE FENCE UP INTO THE SLOPE. REMOVE SEDIMENT WHEN ACCUMULATED TO HALF THE HEIGHT OF THE FENCE. SILT FENCES ARE TO BE MAINTAINED UNTIL SLOPES ARE STABILIZED.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6", FOLDED AND STAPLED.

SILT FENCE DETAIL

N.T.S.

E-003 REVISED 08/01/2014

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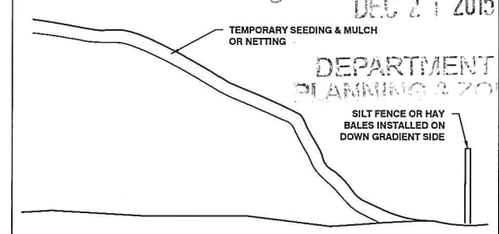
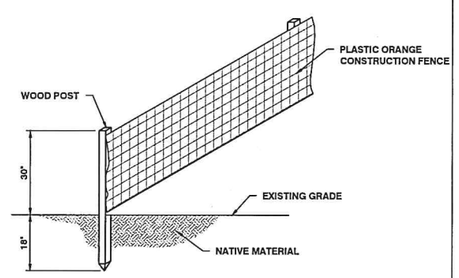
DEC 21 2015
DEPARTMENT OF
PLANNING & ZONING



TEMPORARY STOCKPILE DETAIL

N.T.S.

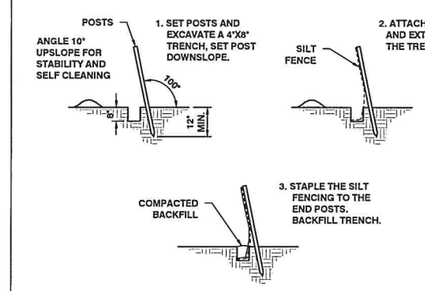
E-005 REVISED 08/01/2014



CONSTRUCTION FENCE DETAIL

N.T.S.

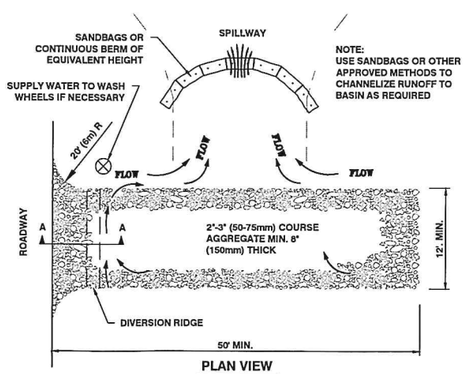
E-002 REVISED 08/01/2014



SILT FENCE CONSTRUCTION DETAIL

N.T.S.

E-007 REVISED 08/01/2014



PLAN VIEW

SECTION A-A

NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

STABILIZED CONSTRUCTION ENTRANCE

N.T.S.

E-004 REVISED 08/01/2014

SITE ENGINEER:
CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

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DRAWN: PJM
CHECKED: SAV
APPROVED: SAV

OWNER:
BURLINGTON COLLEGE
351 NORTH AVE
BURLINGTON VERMONT
05401

PROJECT:
BUILDING RENOVATION AND SITE IMPROVEMENTS
329, 351 NORTH AVE.
BURLINGTON, VT

DATE	CHECKED	REVISION
12/18/15	SAV	LOCAL PLAN SUBMITTAL

EROSION CONTROL NOTES and DETAILS

DATE: 12/18/2015
SCALE: AS SHOWN
PROJ. NO.
DRAWING NUMBER: C3.1

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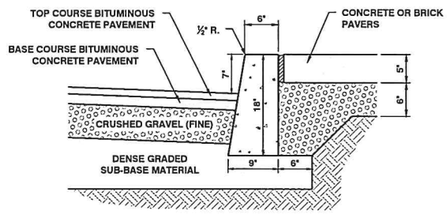


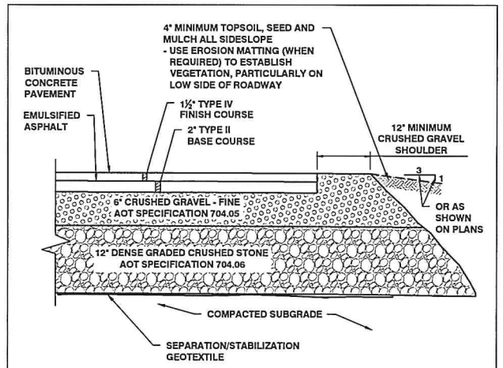
NOTES:

1. CURBING SHALL BE CONSTRUCTED IN 10' SECTIONS WITH ½" JOINT BETWEEN SECTIONS.
2. CURBING EXPANSION JOINTS SHALL BE CONSTRUCTED EVERY 20' AND SHALL BE CONSTRUCTED OF MATERIAL CONFORMING TO AASHTO DESIGNATION M-153 (½" SPONGE RUBBER OR CORK).
3. ASPHALT TREATED FELT TO BE USED BETWEEN SIDEWALK AND CONCRETE CURB TOP.

CURB w/SIDEWALK DETAIL

(SIMILAR WITH OUT SIDEWALK) N.T.S.

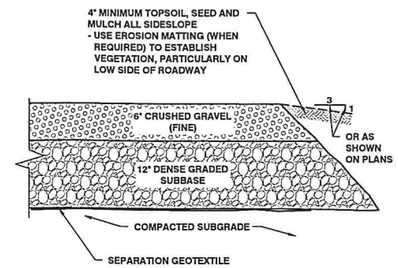
S-001 REVISED 08/01/2014



TYPICAL PAVEMENT SECTION

(FULL DEPTH CONSTRUCTION SECTION) N.T.S.

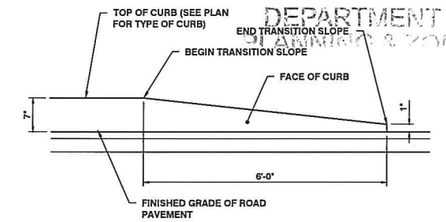
S-003 REVISED 11/10/2014



TYPICAL GRAVEL SURFACE SECTION

N.T.S.

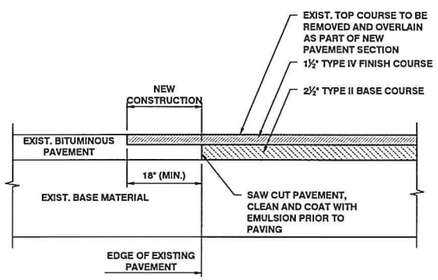
S-004 REVISED 11/10/2014



TRANSITION CURB DETAIL

N.T.S.

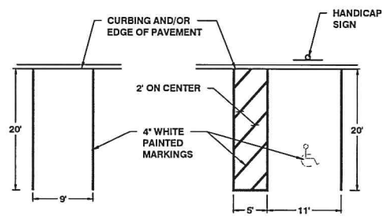
S-006 REVISED 08/01/2014



TRANSITION FROM NEW PAVEMENT TO EXISTING PAVEMENT

N.T.S.

S-014 REVISED 08/01/2014



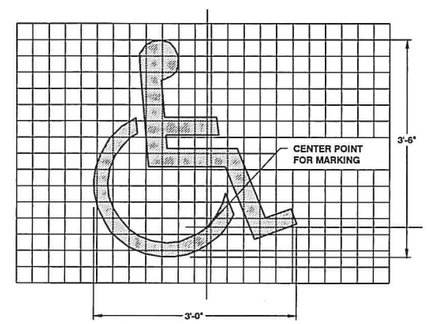
STANDARD PARKING SPACE HANDICAP PARKING SPACE

TRAFFIC MARKING PAINT TO BE READY-MIXED TRAFFIC PAINT SUITABLE FOR MARKING ON EITHER BITUMINOUS OR PORTLAND CEMENT CONCRETE PAVEMENT. READY-MIXED LOW VOC TRAFFIC PAINT SHALL CONSIST OF 100% ACRYLIC TYPE, FAST DRYING TRAFFIC PAINT.

LINE STRIPING DETAIL

N.T.S.

S-015 REVISED 12/09/2014

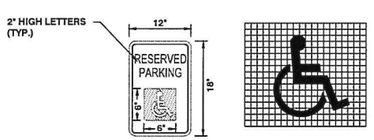


NOTE: PAVEMENT MARKINGS TO MEET STATE STANDARDS E-191

HANDICAPPED PARKING MARKING DETAIL

N.T.S.

S-015a REVISED 4/07/2015



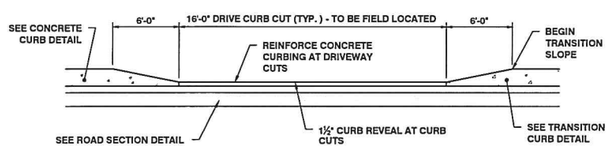
COLOR: LEGEND AND BORDER - GREEN
WHITE SYMBOL ON BLUE BACKGROUND
BACKGROUND - WHITE
MATERIAL: AS PER VAOT STANDARD E-143M
POST: 2" (14 ga.) SQUARE STEEL SIGN POST
INSTALL IN ACCORDANCE w/VAOT STANDARD E-164

HANDICAPPED PARKING SIGN DETAIL

N.T.S.

SIGN SHALL BE POSTED AT THE HEAD OF EACH HANDICAPPED SPACE. MOUNTING HEIGHT IS 60" MINIMUM TO BOTTOM OF SIGN.

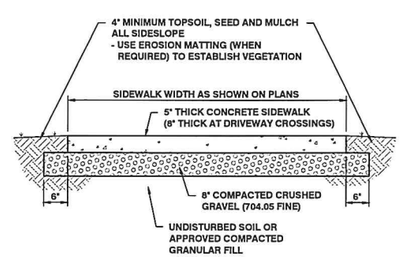
S-015b REVISED 4/07/2015



DRIVE CURB CUT DETAIL

N.T.S.

S-007 REVISED 08/01/2014



NOTES:

1. EXPANSION JOINTS SHALL NOT BE PLACED
2. THE SIDEWALK SHALL BE DIVIDED AT INTERVALS OF FIVE FEET BY DUMMY JOINTS.
3. NO DEICER SHALL BE APPLIED TO SIDEWALK UNTIL AT LEAST 30 DAYS OF AIR DRYING TIME HAS OCCURRED.

CONCRETE SIDEWALK DETAIL

N.T.S.

S-002 REVISED 9/17/2015

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DEC 21 2015
DEPARTMENT OF PLANNING & ZONING

SITE ENGINEER:
CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

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CHECKED: SAV
APPROVED: SAV

OWNER:
BURLINGTON COLLEGE
351 NORTH AVE
BURLINGTON VERMONT
05401

PROJECT:
BUILDING RENOVATION AND SITE IMPROVEMENTS
329, 351 NORTH AVE.
BURLINGTON, VT

DATE	CHECKED	REVISION
12/18/15	SAV	LOCAL PLAN SUBMITTAL

SITE DETAILS

DATE 12/18/2015
SCALE AS SHOWN
PROJ. NO. 14215
DRAWING NUMBER C4.0

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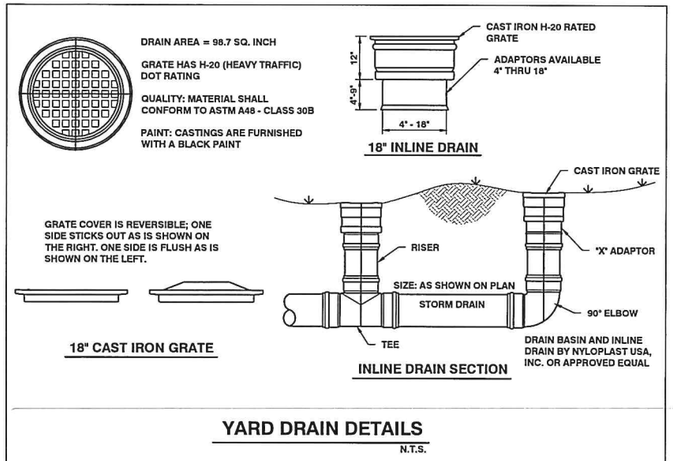
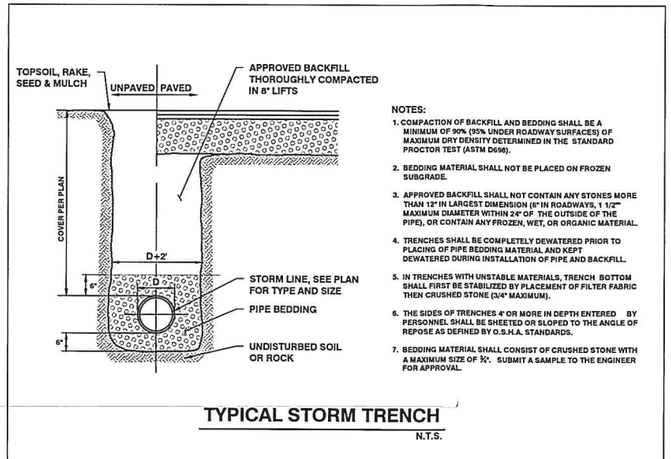


YARD DRAIN DETAILS

N.T.S.

ST-008 REVISED 08/01/2014



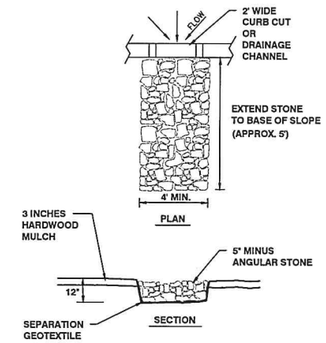
NOTES:

1. COMPACTION OF BACKFILL AND BEDDING SHALL BE A MINIMUM OF 90% (95% UNDER ROADWAY SURFACES) OF MAXIMUM DRY DENSITY DETERMINED IN THE STANDARD PROCTOR TEST (ASTM D698).
2. BEDDING MATERIAL SHALL NOT BE PLACED ON FROZEN SUBGRADE.
3. APPROVED BACKFILL SHALL NOT CONTAIN ANY STONES MORE THAN 12" IN LARGEST DIMENSION (6" IN ROADWAYS, 1 1/2" MAXIMUM DIAMETER WITHIN 24" OF THE OUTSIDE OF THE PIPE), OR CONTAIN ANY FROZEN, WET, OR ORGANIC MATERIAL.
4. TRENCHES SHALL BE COMPLETELY DEWATERED PRIOR TO PLACING OF PIPE BEDDING MATERIAL AND KEPT DEWATERED DURING INSTALLATION OF PIPE AND BACKFILL.
5. IN TRENCHES WITH UNSTABLE MATERIALS, TRENCH BOTTOM SHALL FIRST BE STABILIZED BY PLACEMENT OF FILTER FABRIC THEN CRUSHED STONE (3/4" MAXIMUM).
6. THE SIDES OF TRENCHES 4' OR MORE IN DEPTH ENTERED BY PERSONNEL SHALL BE SHEETED OR SLOPED TO THE ANGLE OF REPOSE AS DEFINED BY O.S.H.A. STANDARDS.
7. BEDDING MATERIAL SHALL CONSIST OF CRUSHED STONE WITH A MAXIMUM SIZE OF ¾". SUBMIT A SAMPLE TO THE ENGINEER FOR APPROVAL.

TYPICAL STORM TRENCH

N.T.S.

ST-003 REVISED 08/01/2014



STONE OUTFALL PAD IN BIORETENTION AREA

N.T.S.

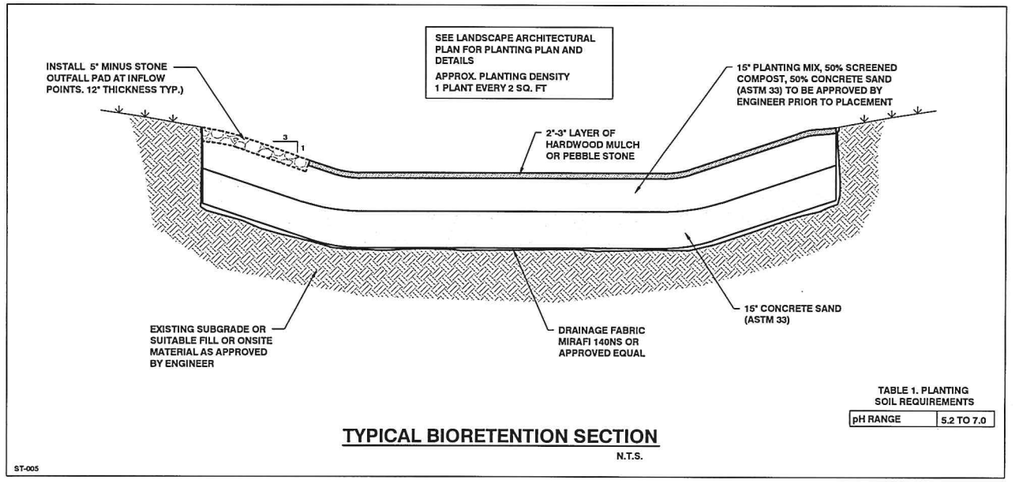


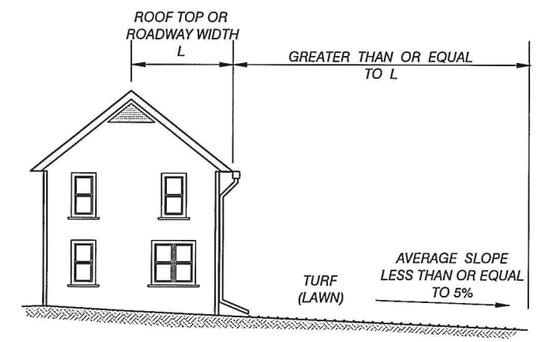
TABLE 1. PLANTING SOIL REQUIREMENTS

pH RANGE	5.2 TO 7.0

TYPICAL BIORETENTION SECTION

N.T.S.

ST-005



DISCONNECTION CREDIT REQUIREMENTS

(MUST BE MET FOR ALL ROOFTOPS, WALKS AND ROADWAYS) PER SECTION 3.3 OF THE 2002 VERMONT STORMWATER MANAGEMENT MANUAL

- THE MAXIMUM CONTRIBUTING FLOW PATH LENGTH ACROSS ROOFTOP OR ROADWAY TO A DISCHARGE LOCATION SHALL BE 75 FEET OR LESS.

- THE AMOUNT OF CONTRIBUTING IMPERVIOUS AREA (ROOFTOP OR ROAD SURFACE) TO ANY POINT DISCHARGE LOCATION CANNOT EXCEED 1,000 SF.

- THE LENGTH OF THE "DISCONNECTION" SHALL BE EQUAL TO OR GREATER THAN THE CONTRIBUTING IMPERVIOUS FLOW PATH LENGTH.

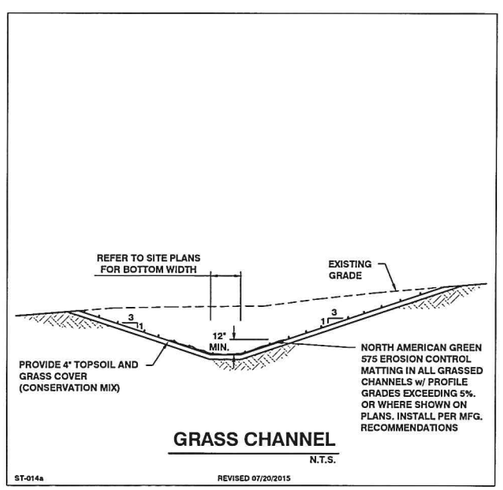
- THE ENTIRE VEGETATIVE "DISCONNECTION" SHALL BE ON A SLOPE LESS THAN OR EQUAL TO 5.0%.

- WHERE A GUTTER/DOWNSPOUT SYSTEM IS NOT USED, THE ROOFTOP RUNOFF MUST DRAIN AS EITHER SHEETFLOW FROM THE STRUCTURE OR DRAIN TO A SUBSURFACE DRAIN FIELD THAT IS NOT DIRECTLY CONNECTED TO THE DRAINAGE NETWORK.
-RUNOFF CANNOT COME FROM A DESIGNATED HOTSPOT LAND USE.

DISCONNECTION CREDIT DETAIL

N.T.S.

ST-029 REVISED 1/29/2015



GRASS CHANNEL

N.T.S.

ST-014a REVISED 07/20/2015

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DEPARTMENT OF PLANNING & ZONING

SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
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DRAWN PJM
CHECKED SAV
APPROVED SAV

OWNER:

BURLINGTON COLLEGE

351 NORTH AVE
BURLINGTON VERMONT
05401

PROJECT:

BUILDING RENOVATION AND SITE IMPROVEMENTS
329, 351 NORTH AVE.

BURLINGTON, VT

DATE	CHECKED	REVISION
12/18/15	SAV	LOCAL PLAN SUBMITTAL

SITE DETAILS

DATE 12/18/2015
SCALE AS SHOWN
PROJ. NO. 14215
DRAWING NUMBER C4.1

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PROJECT COORDINATION UPDATED 9/14/15

PART 1 – GENERAL

1.01 MEETINGS & PROJECT ACCESS

A. The Owner shall be notified five (5) days prior to commencement of Work by the Contractor.

B. The Contractor will coordinate with the Owner to arrange an on-site pre-construction meeting prior to commencement of any work. Job superintendents and subcontractors shall be included in this meeting.

C. The Contractor will coordinate all phases of the Work, so as not to interfere with the normal work procedures in the area.

D. The Contractor shall conduct his work in such a manner as to not interfere with or endanger work or traffic in areas adjacent to the construction area, except as permitted by the Owner. The Contractor shall so arrange his construction operations as to provide access for emergency vehicles and equipment to the work site at all times.

1.02 LABOR

A. The Contractor and subcontractors will employ mechanics skilled in their respective trades.

B. All labor will be performed in a neat and workmanlike manner.

1.03 PROTECTION OF PERSONS AND PROPERTY

A. The Contractor shall be responsible for initiating, maintaining, and supervising all O.S.H.A. safety precautions in connection with the Work.

B. Fire Protection: The Contractor shall take all necessary precautions to prevent fires adjacent to the Work and shall provide adequate facilities for extinguishing fires. The Contractor shall also prevent fires in project related buildings and shall prevent the spread of fires to areas outside the limits of the Work.

C. Safety Precautions: Prior to commencement of Work, the Contractor shall be familiar with all safety regulations and practices applicable with construction operations. No additional payments will be made for equipment and procedures necessitated by these safety precautions.

1.04 CORRECTION OF WORK

A. The Contractor shall promptly correct all Work rejected by the Owner as defective or as failing to conform to the Contract Documents. The Contractor shall bear all cost of correcting such rejected Work.

1.05 WEATHER CONDITIONS

A. No Work shall be done when, in the opinion of the Owner, the weather is unsuitable. No concrete, earth backfill, embankment, or paving shall be placed upon frozen material. If there is delay or interruption in the Work due to weather conditions, the necessary precautions must be taken to bond new Work to old.

B. Protection Against Water and Storm: The Contractor shall take all precautions to prevent damage to the Work by storms or by water entering the site of the Work directly or through the ground. In case of damage by storm or water, the Contractor, at his own expense, shall make repairs or replacements or rebuild such parts of the Work as the Engineer may require in order that the finished work may be completed as required by the Drawings and Specifications.

1.06 DISPOSAL OF DEBRIS

A. All debris and excess materials, other than that which is authorized to be reused, become the property of the Contractor and shall be promptly removed from the property. The Contractor shall receive title to all debris and/or excess material. The Owner will not be responsible for any loss or damage to debris or excess material owned by the Contractor.

1.07 PROJECT LAYOUT

A. The Contractor shall be responsible for providing all necessary survey staking.

1. Locate and protect control points before starting work on the site.

2. Preserve permanent reference points during progress of the Work.

3. Establish a minimum of two permanent benchmarks on the site, referenced to data established by survey control points.

a. Record locations, with horizontal and vertical data, on Project Record Documents.

1.08 TESTING

A. The Contractor is responsible for obtaining testing and inspection services.

SITE CLEARING

PART 1 – GENERAL

1.01 SUMMARY

A. Section includes:

1. Remove surface debris.

2. Clear site of plant life and grass.

3. Remove trees and shrubs.

4. Remove root system of trees and shrubs.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

3.01 PROTECTION

A. Protect utilities that remain from damage.

B. Protect trees, plant growth, and features designated to remain as final landscaping.

C. Protect bench marks and existing structures from damage or displacement.

D. Use means necessary to prevent dust becoming a nuisance to the public, to neighbors, and to other work being performed on or near the site.

E. Maintain access to the site at all times.

3.02 CLEARING

A. Clear areas required for access to site and execution of Work.

B. Remove trees and shrubs within marked areas. Remove stumps, roots and tap roots and other projections 1¢" or greater in diameter to 2'-0" below the excavated surfaces in cut areas and 2'-0" below the exposed subgrade in fill areas.

3.03 REMOVAL

A. Remove debris, rock, and extracted plant life from site.

B. The Contractor shall coordinate Work with the Engineer and Owner in establishing suitable areas within the property limits for depositing debris, rocks and extracted plant life. The Contractor shall be responsible for backfilling (capping) and grading all waste sites.

3.04 UTILITIES

A. Coordinate with utility companies and agencies as required.

SITE EARTHWORK

PART 1 – GENERAL

1.01 SUMMARY

A. Section includes:

1. All excavation (unless covered in other sections of these specifications), removal and stockpile of topsoil, stabilization fabric, and other miscellaneous and appurtenant works.

2. Site filling.

3. Roadway structural sections.

1.02 PROTECTION

A. Protect bench marks and existing structures.

B. Protect above or below grade utilities which are to remain.

1.03 SUBMITTALS

A. Testing laboratory reports indicating that material for backfill meets requirements of this Section.

B. Field density test reports of site fill in place.

C. Field density test reports for roadway structural sections in place.

D. Stabilization Fabric: Submit copies of manufacturer's specifications and installation instructions.

PART 2 – PRODUCTS

2.01 STRUCTURAL FILL – CRUSHED GRAVEL (AOT SPEC. 704.05, FINE)

A. All materials shall be secured from approved sources. This gravel shall consist of angular and round fragments of hard durable rock of uniform quality throughout, reasonably free from thin elongated pieces, soft or disintegrated stone, dirt, organic or other objectionable matter. This material shall meet the following grading requirements:

Sieve Designation	Percent by Weight Passing Square Mesh Sieve
2"	100
1 1/2"	90 – 100
No. 4	30 – 60
No. 100	0 – 12
No. 200	0 – 6

2.02 CRUSHED GRAVEL (AOT SPEC. 704.05, COARSE)

A. This material shall meet the following grading requirements:

Sieve Designation	Percent by Weight Passing Square Mesh Sieve
4"	95 – 100
No. 4	25 – 50
No. 100	0 – 12
No. 200	0 – 6

At least 50% by mass (weight) of the material coarser than the No. 4 sieve shall have at least one fractured face.

2.03 COMPACTED FILL/GRANULAR BORROW

A. This material shall be free of shale, clay, friable material, debris, and organic matter, graded in accordance with ANSI/ASTM C136 within the following limits:

Sieve Designation	Percent by Weight Passing Square Mesh Sieve
3"	100
¾"	75 – 100
No. 4	20 – 100
No. 100	0 – 20
No. 200	0 – 6

2.04 DRAINAGE COURSE (AOT SPEC. 704.16)

A. Rock for drainage applications shall be produced from natural gravels or crushed quarried rock and shall consist of clean, hard, sound, and durable material. It shall be obtained from approved sources and shall meet the following grading requirements:

Sieve Designation	Percent by Weight Passing Square Mesh Sieve
1"	100
¾"	90 – 100
¾"	20 – 55
No. 4	0 – 10
No. 8	0 – 10

2.5. DENSE GRADED CRUSHED STONE

A. Dense Graded Crushed Stone should consist of a well graded crushed run stone and should meet the requirements for Vermont AOT Standard Specifications Item 704.06 Dense Graded Crushed Stone for Subbase and the gradation requirements shown in Table 704.06A of the Vermont AOT Standard Specifications.

Sieve Designation	Percent Finer by Weight
3½"	100
3"	90 – 100
2"	75 – 100
1"	50 – 80
½"	30 – 60
No. 4	15 – 40
No. 200	0 – 6

2.1. RECYCLED ASPHALT PAVEMENT (RAP) 1½" MINUS CRUSHED ASPHALT

A. This material shall be free of Portland Cement and approved by the engineer prior to installation. This material shall not be mixed with gravel and shall meet the following grading requirements:

Sieve Designation	Percent by Weight Passing Square Mesh Sieve
2"	100
1½"	90 – 100
No. 4	30 – 60
No. 100	0 – 12
No. 200	0 – 6

2.07 GEOTEXTILE

A. Subsurface Drainage Geotextile: Nonwoven needle-punched geotextile, manufactured for subsurface drainage applications, made from polyolefins or polyesters; with elongation greater than 50 percent; complying with AASHTO M 288 and the following, measured per test methods referenced:

1. Survivability: Class 3; AASHTO M 288.

2. Grab Tensile Strength: 157 lbf; ASTM D 4632.

3. Sewn Seam Strength: 142 lbf; ASTM D 4632.

4. Tear Strength: 56 lbf; ASTM D 4533.

5. Puncture Strength: 56 lbf; ASTM D 4833.

6. Apparent Opening Size: No. 70 sieve, maximum; ASTM D 4751.

7. Permittivity: 0.5 per second, minimum; ASTM D 4491.

8. UV Stability: 50 percent after 500 hours' exposure; ASTM D 4355.

B. Separation Geotextile: Woven geotextile fabric, manufactured for separation applications, made from polyolefins or polyesters; with elongation less than 50 percent; complying with AASHTO M 288 and the following, measured per test methods referenced:

1. Survivability: Class 3; AASHTO M 288.

2. Grab Tensile Strength: 200 lbf; ASTM D 4632.

3. Sewn Seam Strength: 222 lbf; ASTM D 4632.

4. Tear Strength: 75 lbf; ASTM D 4533.

5. Puncture Strength: 90 lbf; ASTM D 4833.

6. Apparent Opening Size: No. 60 sieve, maximum; ASTM D 4751.

7. Permittivity: 0.02 per second, minimum; ASTM D 4491.

8. UV Stability: 50 percent after 500 hours' exposure; ASTM D 4355.

9. Weight: 4.0 oz/yd² minimum.

PART 3 – EXECUTION

3.01 PREPARATION

A. Identify required lines, levels, contours, and datum.

B. Identify known below grade utilities. Stake and flag locations.

C. Maintain and protect existing utilities remaining which pass through work area.

D. Upon discovery of unknown utility or concealed conditions, discontinue affected work; notify Engineer.

3.02 EROSION CONTROL

A. Erosion control must be installed prior to beginning any earthwork operations.

3.03 TOPSOIL EXCAVATION

A. Excavate topsoil from areas to be excavated, re-landscaped or regraded and stockpile in areas designated on site or as directed by the Engineer.

B. Maintain the stockpile in a manner which will not obstruct the natural flow of drainage.

1. Maintain stockpile free from debris and trash.

2. Keep the topsoil damp to prevent dust and drying out.

3.04 SUBSOIL EXCAVATION

A. Excavate subsoil from areas to be regraded in accordance with plans.

B. Excavate subsoil required to accommodate site structures, construction operations, roads, and parking areas.

C. Grade top perimeter of excavation to prevent surface water from draining into excavation.

D. Notify engineer of unexpected subsurface conditions and discontinue affected work in area until notified to resume work.

E. Correct areas over-excavated by error as directed by the Engineer.

3.05 DITCHES

A. Cut accurately to the cross-sections, grades, and elevations shown.

B. Maintain excavations free from detrimental quantities of leaves, sticks, trash, and other debris until completion of the work.

C. Dispose of excavated materials as shown on the drawings or directed by the Engineer; except do not, in any case, deposit materials less than three feet from the edge of a ditch.

3.06 ROADWAY EMBANKMENTS AND BERMS

A. When embankments are to be made on a hillside, the slope of the original ground on which the embankments are to be constructed shall be stepped and properly drained as the fill is constructed so that adverse movements of the slopes do not occur.

B. Any excavated rock, ledge, boulders, and stone, except where required in the construction of other items or otherwise directed, shall be used in the construction of embankments to the extent of the project requirements and generally shall be placed so as to form the base of an embankment.

C. Frozen material shall not be used in the construction of embankments, nor shall the embankments or successive layers of the embankments be placed upon frozen material. Placement of material other than rock shall stop when the sustained air temperature, below 32 degrees Fahrenheit, prohibits the obtaining of the required compaction. If the material is otherwise acceptable, it shall be stockpiled and reserved for future use when its condition is acceptable for use in embankments.

D. When an embankment is to be constructed across a swamp, muck, or areas of unstable soils, the unsuitable material shall be excavated to reach soils of adequate bearing capacity and the embankment begun. Alternative methods, such as use of a stabilization fabric in place of excavation and backfill, may be utilized only after approval of same by the Engineer.

E. Material being placed in embankments shall be placed in horizontal layers of uniform thickness across the full width of the embankment. Stumps, trees, rubbish, and other unsuitable material shall not be placed in embankments.

F. Embankment areas shall be placed in eight-inch maximum lifts. Effective spreading equipment shall be used on each layer to obtain uniform thickness prior to compaction. Each layer shall be kept crowned to shed water to the outside edge of embankment and continuous leveling and manipulating will be required to assure uniform density. The entire area of each layer shall be uniformly compacted to at least the required minimum density by use of compaction equipment consisting of rollers, compactors, or a combination thereof. Earth-moving and other equipment not specifically manufactured for compaction purposes will not be considered as compaction equipment.

G. All fill material shall be compacted at a moisture content suitable for obtaining the required density. In no case shall the moisture content in each layer under construction be more than three percent above the optimum moisture content and shall be less than that quantity that will cause the embankment to become unstable during compaction. Sponginess, shoving, or other displacement under heavy equipment shall be considered evidence for an engineering determination of lack of stability under this requirement, and further placement of material in the area affected shall be stopped or retarded to allow the material to stabilize.

H. When the moisture content of the material in the layer under construction is less than the amount necessary to obtain satisfactory compaction by mechanical compaction methods, water shall be added by pressure distributors or other approved equipment. Water may also be added in excavation or borrow pits. The water shall be uniformly and thoroughly incorporated into the soil by disc, harrowing, blading, or by other approved methods. This manipulation may be omitted for sands and gravel. When the moisture content of the material is in excess of three percent above optimum moisture content, dry material shall be thoroughly incorporated into the wet material, or the wet material shall be aerated by disking, harrowing, blading, rotary mixing, or by other approved methods; or compaction of the layer of wet material shall be deferred until the layer has dried to the required moisture content by evaporation.

3.07 COMPACTION REQUIREMENTS

A. All backfills and fills shall be compacted in even lifts (12" maximum) to attain the required densities as follows:

Location	Modified Proctor ASTM D-1557
Subgrade (8") and Gravel for Roads and Parking Lots	95%
General Embankments	90%

UTILITY TRENCHING AND BACKFILLING

PART 1 – GENERAL

1.01 SUMMARY

A. Section includes:

1. Trench, backfill, and compact as specified herein and as needed for installation of underground utilities.

1.02 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this section.

B. Use equipment adequate in size, capacity, and numbers to accomplish the work in a timely manner.

C. Comply with all requirements of governmental agencies having jurisdiction.

PART 2 – PRODUCTS

2.01 SOIL MATERIALS

A. Fill and backfill materials:

1. Provide backfill materials free from organic matter and deleterious substances, containing no rocks or lumps over 6" in greatest dimension.

2. Fill material is subject to the approval of the Engineer, and is that material removed from excavations or imported from off-site borrow areas, predominantly granular, non-expansive soil free from roots and other deleterious matter.

3. Do not permit rocks having a dimension greater than 2" within 2' of the outside of pipe.

4. Cohesionless material used for backfill: Provide sand free from organic material and other foreign matter, and as approved by the Engineer.

PART 3 – EXECUTION

3.01 PROCEDURES

A. Existing Utilities:

1. Unless shown to be removed, protect active utility lines shown on the drawings or otherwise made known to the Contractor prior to trenching. If damaged, repair or replace at no additional cost to the Owner.

2. When existing underground utilities, which are not scheduled for removal or abandonment, are encountered in the excavation, they shall be adequately supported and protected from damage. Any damage to utilities shall be repaired promptly at no additional cost to the Owner.

3. If the service is interrupted as a result of work under this section, immediately restore service by repairing the damaged utility at no additional cost to the Owner.

4. If existing utilities are found to interfere with the permanent facilities being constructed under this section, immediately notify the Engineer and secure his instructions.

5. Do not proceed with permanent relocation of utilities until written instructions are received from the Engineer.

B. Protection of persons and property:

1. Barricade open holes and depressions occurring as part of the work, and post warning lights on property adjacent to or with public access.

2. Operate warning lights during hours from dusk to dawn each day and as otherwise required.

3. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, washout, and other hazards created by operations under this section.

C. Dewatering: The Contractor, at all times, shall conduct his operations so as to prevent the accumulation of water, ice, and snow in excavations or in the vicinity of excavated areas, and to prevent water from interfering with the progress of quality of the work. Under no conditions shall water be allowed to rise in open trenches after pipe has been placed.

D. Accumulated water, ice, and snow shall be promptly removed and disposed of by pumping or other approved means. Disposal shall be carried out in a manner which will not create a hazard to public health, nor cause injury to public or private property, work completed or in progress, or public streets, nor cause any interference in the use of streets and road by the public. Pipes under construction shall not be used for drainage of excavations.

E. Maintain access to adjacent areas at all time.

3.02 TRENCHING

A. Care shall be exercised by the Contractor to avoid disrupting the operation of existing facilities without prior written approval of the Engineer.

B. Provide sheeting and shoring necessary for protection of the work and for the safety of personnel.

1. Sheeting and bracing required for trenches shall be removed to the elevation of the pipe, but no sheeting will be allowed to be pulled, removed, or disturbed below the pipe.

C. A trench shall be excavated to the required depth and to a width sufficient to allow for joining of the pipe and compaction of the bedding and backfill material under and around the pipe. Where feasible, trench walls shall be vertical.

D. The completed trench bottom shall be firm for its full length and width.

E. If indicated on the plans or directed by the Engineer, poor foundation material encountered below the normal grade of the pipe bed shall be removed and replaced with granular backfill.

F. Where pipes are to be placed in embankment fill, the excavation shall be made after the embankment has been

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OWNER:

BURLINGTON COLLEGE

351 NORTH AVE
BURLINGTON VERMONT
05401

PROJECT:

BUILDING RENOVATION AND SITE IMPROVEMENTS
329, 351 NORTH AVE.

BURLINGTON, VT

LOCATION MAP
1" = 2000'

DATE	CHECKED	REVISION
12/18/15	SAV	LOCAL PLAN SUBMITTAL

SITE SPECIFICATIONS

DATE 12/18/2015
SCALE NONE
PROJ. NO.
DRAWING NUMBER C5.0

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completed to a height of 3 feet plus the diameter of the pipe above the designed grade of the pipe.

G. Excavating for appurtenances:

1. Excavate for manholes and similar structures to a distance sufficient to leave at least 12" clear between outer surfaces and the embankment or shoring that may be used to hold and protect the banks.

2. Over-depth excavation beyond such appurtenances that has not been directed will be considered unauthorized. Fill with sand, gravel, or lean concrete as directed by the Engineer, and at no additional cost to the Owner.

H. Excavation shall not interfere with normal 45° bearing splay of foundations.

I. All trenching shall be in accordance with the latest OSHA requirements.

J. Where utility runs traverse public property or are subject to governmental or utility company jurisdiction, provide depth, bedding, cover, and other requirements as set forth by legally constituted authority having jurisdiction, but in no case less than the depth shown in the Contract Documents.

K. Where trenching occurs in existing lawns, remove turf in sections and keep damp. Replace turf upon completion of the backfilling.

3.03 BEDDING

A. Pipe Bedding Area: Prior to laying pipe, bedding material shall be placed to the limits of the excavation and to a depth beneath the pipe as specified. This material shall be either sand, gravel, or crushed stone and shall not contain large lumps and stones over one inch in diameter. As the pipe is laid, bedding material shall be extended to 6" above the pipe and leveled along the width of the trench.

3.04 BACKFILLING

A. Backfilling shall not be done in freezing weather, with frozen materials, or when materials already placed are frozen.

B. Unless otherwise specified or indicated on the plans, material used for backfilling trenches above the bedding area shall be suitable material which was removed during excavation or obtained from borrow and when compacted shall make a dense stable fill. The material shall not contain vegetation, porous matter, masses of roots, individual roots more than 18 inches long or ½ inch thick, or stones greater than 50 pounds or larger than six inches in the widest dimension.

C. If additional material is required, it shall be furnished from approved sources.

D. Backfill material shall be evenly spread and compacted in lifts not more than 12 inches thick or as approved by the Engineer. Previously placed or new materials shall be moistened by sprinkling, if required, to ensure proper bond and compaction.

E. Reopen trenches which have been improperly backfilled, to a depth as required for proper compaction. Refill and compact as specified, or otherwise correct to the approval of the Engineer.

F. Should any of the work be so enclosed or covered up before it has been approved, uncover all such work and, after approvals have been made, refill and compact as specified, all at no additional cost to the Owner.

G. Take special care in backfilling and bedding operations to not damage pipe and pipe coatings.

H. No compacting shall be done when the material is too wet to be compacted properly. At such times the work shall be suspended until the previously placed and new materials have dried out sufficiently to permit proper compaction, or such other precautions are taken as may be necessary to obtain proper compaction.

I. Backfill material shall be compacted to the following percentages of maximum dry density and the in-place moisture content shall not be more than 2% above the optimum moisture content, as determined by Modified Proctor ASTM D1557.

1. Around all structures, under roadway paving, shoulder and embankments – 95%.

2. All other areas – 90%.

BITUMINOUS CONCRETE PAVING

PART 1 – GENERAL

1.01 SUMMARY

A. Section includes:

1. Base Courses

2. Leveling Courses

3. Finish Course

B. General: This work shall consist of one or more courses of bituminous mixture, constructed on a prepared foundation in accordance with these Specifications and the type of surface being placed, and in conformity with the lines, grades, thicknesses and typical cross sections shown on the plans or established by the Engineer.

1.02 QUALITY ASSURANCE

A. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. All materials and installation shall be in accordance with The Asphalt Institute Manual (MS-4) and the VAOT Standard Specifications, (Latest Edition).

C. Mixing Plant: Conform to State of Vermont Standards.

D. Obtain materials from same source throughout.

1.03 PROJECT CONDITIONS

A. Bituminous concrete shall not be placed between November 1 and May 1. Material shall not be placed when the granular subbase is wet or when the air temperature at the paving site in the shade and away from artificial heat is as follows:

Air Temperature Degrees Fahrenheit	Pavement Compacted Depth
40 Degrees or below	1 1/4" or Greater
50 Degrees or below	Less than 1 1/4"

PART 2 – PRODUCTS

2.01 MATERIALS

A. Materials shall be combined and graded to meet the criteria as defined in the VAOT Standard Specifications, Division 700 for bituminous concrete.

B. Gradation: Materials shall be combined and graded to meet composition limits specified in VAOT Standard Specification, Section 406.03, for the base course and finish course. Unless specifically shown on the Plans, all

1. Bituminous concrete pavement shall be designed in conformance with the design criteria for heavy duty bituminous concrete pavement. (75 blows/side)

2. All Asphalt Cement used in the bituminous concrete pavement shall be PG 58-28 (or VTrans approved mix) unless otherwise noted.

C. Thickness of paving for drives and parking lots shall be as shown on the plans, consisting of base course and finish course.

D. For pavement reconstruction areas due to trenching, the depth of each course shall be increased by 1/2". Pavement reconstruction caused by trench reopening due to improper placement or non-approved placement shall be performed at no additional cost to the Owner.

PART 3 – EXECUTION

3.01 INSTALLATION

A. Install in accordance with VAOT Standard Specifications, Section 406.

3.02 EXAMINATION

A. Verify that compacted granular base is dry and ready to support paving and imposed loads.

B. Verify gradients and elevations of base are correct.

3.03 PREPARATION

A. Matching Surfaces: When a new pavement is to match an existing bituminous pavement for a roadway or trench, the Contractor shall vertically smooth cut the existing pavement, over the existing gravel base. The smooth cut shall be thoroughly cleaned and coated with Emulsified Asphalt, RS-1, just prior to paving.

3.04 PREPARATION – TACK COAT

A. When the bottom course of bituminous concrete pavement is left over the winter, or paving is to be made over an existing bituminous concrete pavement, the existing surface shall be cleaned and Emulsified Asphalt applied before the next course is applied.

B. Also apply to contact surfaces of curbs.

C. Coat surfaces of manhole and catch basin frames with oil to prevent bond with asphalt pavement. Do not tack coat these surfaces.

3.05 PLACING ASPHALT PAVEMENT

A. Place to compacted thickness identified on the plans.

B. Compact pavement by rolling. Do not displace or extrude pavement from position. Hand compact in areas inaccessible to rolling equipment.

C. Develop rolling with consecutive passes to achieve even and smooth finish, without roller marks.

3.06 JOINTS

A. Joints between old and new pavements or between successive day's work shall be made so as to insure a thorough and continuous bond between the old and new mixtures. Whenever the spreading process is interrupted long enough for the mixture to attain its initial stability, the paver shall be removed from the mat and a joint constructed.

B. Butt joints shall be formed by cutting the pavement in a vertical plane at right angles to the centerline where the pavement has a true surface as determined by the use of a straight-edge. The butt joint shall be thoroughly coated with Emulsified Asphalt, Type RS-1, just prior to depositing the paving mixtures.

C. Longitudinal joints that have become cold shall be coated with Emulsified Asphalt, Type RS-1, before the adjacent mat is placed. If they have been exposed to traffic, they shall be cut back to a clean vertical edge prior to painting with the emulsion.

D. Unless otherwise directed, longitudinal joints shall be offset at least 6" from any joint in the lower courses of pavement. Transverse joints shall not be constructed nearer than one foot from the transverse joints constructed in lower courses.

3.07 TOLERANCES

A. The surface will be tested by the Engineer using a 16 foot straight-edge at selected locations parallel with the centerline. Any variations exceeding 3/16 of an inch between any two contacts shall be satisfactorily eliminated. A 10 foot straight-edge may be used on a vertical curve. The straight-edges shall be provided by the Contractor.

B. Scheduled Compacted Thickness: Within 1/4 inch.

C. Variation from True Elevation: Within 1/2 inch.

3.08 FIELD QUALITY CONTROL

A. Permit no vehicular traffic on surfaces until thoroughly cool and hard.

3.09 REPAIR OF SUBSIDENCE

A. Settlement – Should any pavement settle within one year of completion of the Contract, such pavement shall be repaired at the Contractor's expense. If the Contractor fails to make such repairs promptly upon receipt of notice to do so from the Owner, then the Owner may make such repairs as necessary and the Contractor shall pay the Owner for all costs incurred in making such repairs.

DRAINAGE

PART 1 – GENERAL

1.01 SUMMARY

A. Section includes:

1. Culvert pipe and appurtenances.

2. Stone fill.

3. Drainage Structures

1.02 REFERENCES

A. Vermont Agency of Transportation Standard Specifications, Latest Edition.

1.03 SUBMITTALS

A. Manufacturer's technical data for:

1. Pipe and appurtenances.

2. Structures.

PART 2 – PRODUCTS

2.01 GENERAL REQUIREMENTS

A. Furnish ells, tees, reducing tees, wyes, couplings, increasers, crosses, transitions and end caps of the same type and class of material as the conduit, or of material having equal or superior physical and chemical properties as acceptable to the Engineer.

B. All culverts and storm drains shall meet the requirements of Section 601 of the Standard Specifications.

2.02 DRAINAGE PIPE & PERFORATED PIPE

A. Culvert / Drainage Pipe

1. Corrugated Polyethylene pipe and fittings (smooth interior) meeting the requirements of AASHTO M-294 and M-252

2. for drainage piping installed by directional boring techniques, use PE 3408 high density polyethylene pipe meeting ASTM D3350 Standard (SDR 11 or better)

2.03 CONCRETE STRUCTURES

A. ASTM C478, sized as indicated.

2.04 METAL ACCESSORIES

A. Manhole frames and covers:

1. Grey cast iron, ASTM A48, as shown on plans.

2.05 STONE FILL

A. Stone for stone fill shall be approved, hard, blasted angular rock other than serpentine rock containing the fibrous variety chrysotile (asbestos). The least dimension of the stone shall be greater than 1/3 of the longest dimension. The stone fill shall be reasonably well graded from the smallest to the maximum size stone specified so as to form a compact mass when in place.

1. Type I – The longest dimension of the stone shall vary from 1 inch to 12 inches, and at least 50 percent of the volume of the stone in place shall have a dimension of 4 inches.

2. Type II – The longest dimension of the stone shall vary from 2 inches to 36 inches, and at least 50 percent of the volume of the stone in place shall have a least dimension of 12 inches.

3. Type III – The longest dimension of the stone shall vary from 3 inches to 48 inches and at least 50 percent of the volume of the stone in place shall have a least dimension of 16 inches.

4. Type IV – The longest dimension of the stone shall vary from 3 inches to 60 inches, and at least 50 percent of the volume of the stone in place shall have a least dimension of 20 inches.

PART 3 – EXECUTION

3.01 INSPECTION

A. Examine the areas and conditions under which storm sewer system work is to be installed and notify the Contractor in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected.

3.02 GENERAL

A. When existing underground utilities, which are not scheduled for removal or abandonment, are encountered in the excavation, they shall be adequately supported and protected from damage. Any damage to utilities shall be repaired promptly at no additional cost to the Owner.

3.03 PREPARATION

A. Hand trim excavation (where necessary) to required elevations. Correct over-excavations with fill material.

B. The slopes shall be graded to match the grade as shown on the plans. Where required, end sections shall be placed and backfilled to prevent undermining.

C. Remove large stones or other hard matter which could damage drainage structures or impede consistent backfilling or compaction.

3.04 INSTALLATION OF PIPE

A. All pipe and fittings shall be carefully examined for defects and no pipe or fittings shall be laid which are known to be defective. If any defective piece is discovered after laying, it shall be removed and replaced at the Contractor's expense. All pipes and fittings shall be cleaned before they are laid and shall be kept clean until accepted in the completed work.

B. The pipe shall be laid to conform to the lines and grades indicated on the drawings or given by the Engineer. Each pipe shall be laid as to form a close joint with the next adjoining pipe and to bring the inverts continuously to the required grade.

C. Unless otherwise permitted by the Engineer, the Contractor shall provide for the temporary diversion of water to permit the installation of the pipe in a reasonably dry trench.

D. Where the pipe is to be laid below the existing ground line, a trench shall be excavated to the required depth and to a width sufficient to allow for joining of the pipe and compaction of the bedding and backfill material under and around the pipe.

E. The completed trench bottom shall be firm for its full length and width.

F. If indicated on the plans or directed by the Engineer, unsuitable foundation material encountered below the normal grade of the pipe bed shall be removed and replaced with Granular Backfill, or other specified or approved material.

G. The Contractor shall take all necessary precautions to prevent floatation of the pipe in the trench.

H. When pipe laying is not in progress, the open ends of the pipe shall be closed with temporary watertight plugs. If water is in the trench when work is resumed, the plug shall not be removed until all danger of water entering the pipe is eliminated.

3.05 MANHOLES

A. Precast concrete structures:

1. Place precast concrete structures and covers as shown on the Drawings.

2. Where manholes occur in pavement, set tops of frames and covers flush with finish surface.

3. Provide rubber joint gasket complying with ASTM C443.

CURBS AND WALKS

PART 1 – GENERAL

1.01 SUMMARY

A. Section includes:

1. Concrete Curbs

2. Concrete Sidewalks

PART 2 – PRODUCTS

2.01 CONCRETE

A. The concrete shall have a minimum compressive strength of 4,000 psi at 28 days and shall conform to the requirements of Cast-in-Place Concrete.

2.02 ADMIXTURES

A. Air-entraining admixture shall meet or exceed ASTM C260. Air content shall range from minimum of 5% to 7%.

2.03 EXPANSION JOINT MATERIAL

A. Expansion joint material shall be premolded bituminous filler conforming to ASTM D994.

PART 3 – EXECUTION

3.01 CONCRETE CURBS

A. Excavation shall be made to the required depth and the base material upon which the curb is to be set shall be compacted to a firm, even surface. All soft and unsuitable material shall be removed and replaced with suitable material which shall be thoroughly compacted.

B. Installation: The curb shall be set so that the front top line is in close conformity to the line and grade required. All space under the curbing shall be filled and thoroughly tamped with material meeting the requirements of the material for the bed course.

C. Concrete Mixing and Placing: Compaction of concrete placed in the forms shall be by spading or other approved methods. Forms shall be left in place for 24 hours or until the concrete has set sufficiently so that they can be removed without injury to the curbing. Upon removal of the forms, the curb shall be immediately rubbed down to a smooth and uniform surface but no plastering will be permitted. For this work, competent and skillful finishers shall be employed.

D. Sections: Curbing shall be constructed in sections having a uniform length of ten feet, unless otherwise ordered. Sections shall be separated by open joints 1/8 inch wide except at expansion joints.

E. Expansion Joints: Expansion joints shall be formed at the intervals shown on the plans using a pre-formed expansion joint filler having a thickness of 1/4 inch cut to conform to the cross-section of the curb. They shall be constructed at 20 foot intervals or as directed by the Engineer. When the curb is constructed adjacent to or on concrete pavement, expansion joints shall be located opposite or at expansion joints in the pavement.

F. Backfilling: After the concrete has set sufficiently, the spaces in front and back of the curb shall be filled to the required elevation with layers of not more than six inches of the same material as the bedding and thoroughly tamped.

G. The Contractor shall protect the curb and keep it in alignment until the completion of the contract. Each curb which is damaged at any time previous to final acceptance of the work shall be removed and replaced with satisfactory curb at the Contractor's expense.

H. Anti-spalling compound: When the initial curbing period is over (approximately 28 days after placement), all exposed surfaces shall receive two (2) coats of anti-spalling compound. The surfaces shall be cleaned, and then the compound shall be applied; the first coat at a rate of .025 gallons per square yard, and the second at a rate of .015 gallons per square yard. Anti-spalling compound shall only be applied when the air temperature is above 50 degrees Fahrenheit.

3.02 GRANITE CURBING

A. Sloped granite curbing shall be hard, durable, reasonably uniform in appearance and free from weakening seams. Surfaces shall be as follows:

- Top: 6" wide, sawn true plane.

- Front Face: Smooth quarry split, right angle top (No drill holes showing in top 10")

- Back Face Exposed: Plane parallel with front face, straight split to 1 1/2" below surface.

- End Face Exposed: Square planes on top and face.

- Joints Exposed: Maximum 1" and pointed with mortar. Exposed faces shall be finished with a jointer. Remove all excess mortar from exposed faces.

- Length: Minimum length 3'.

Provide curved curbing to conform to radii indicated on the Contract Plans.

3.03 CONCRETE SIDEWALKS

A. Excavation and Foundation: Excavation shall be made to the required depth and to a width that will permit placing of bed course material and the installation and bracing of the forms. Bed course material shall be placed to the depth and section shown on the plans. When the layer required exceeds six inches, two layers of approximately equal depth shall be placed and each layer thoroughly compacted so that it is hard and unyielding. The wetting of bed course material may be required to obtain the compaction.

B. Finishing: The surface shall be finished with a wooden float. No plastering will be permitted. The edges shall be rounded with an edger having a radius of 1/4 inch. The surface of the sidewalk, after the floating and screeding process is completed, shall be finished with a broom of a type approved by the Engineer, drawn over the surface parallel to the transverse joints. Special texturing on sidewalk ramps shall be installed in accordance with construction plan details.

C. Joints: Unless otherwise indicated on the plans or directed by the Engineer, expansion joints shall not be used in the sidewalk. Expansion joints shall be formed around all appurtenances such as manholes, utility poles and other obstructions extending into and through the sidewalk. Pre-formed joint filler 1/4 inch thick shall be installed in these joints. Expansion joint filler of the thickness indicated shall be installed between concrete sidewalks and any fixed structure such as a building or bridge. This expansion joint material shall extend for the full depth of the walk. Between the expansion joints, the sidewalk shall be divided at intervals of 5 feet by dummy joints formed by sawcutting or other acceptable means as directed to provide grooves approximately 1/16 inch wide and at least 1/3 of the depth.

When the sidewalk is constructed next to a concrete curb expansion, joint material shall be placed between sidewalk and curb for the depth of the sidewalk.

D. Curing: During the curing period all traffic, both pedestrian and vehicular, shall be excluded. Vehicular traffic shall be excluded for such additional time as the Engineer may direct.

E. Backfilling: Before the concrete has been opened to traffic, the space on each side of the sidewalk shall be backfilled to the required elevation with suitable material, firmly compacted and neatly graded.

LANDSCAPE GRADING

PART 1 – GENERAL

1.01 SUMMARY

A. Section includes:

1. Finish grading; bring rough grade in areas to design elevations as shown on the drawings.

2. Topsoil: Work shall consist of furnishing, placing and shaping topsoil, or placing, spreading, and shaping topsoil form stockpiles or stripped areas.

PART 2 – PRODUCTS

2.01 TOPSOIL

A. Topsoil shall be loose, friable, reasonably free of admixtures of subsoil, free from refuses, stumps, roots, brush, weeds, rocks, and stones 1 1/4 inch in overall dimensions. The topsoil shall also be free from any material that will prevent the formation of a suitable seedbed or prevent seed germination and plant growth. It shall contain not less than three (3) nor more than twenty (20) percent organic matter. Any material which has become mixed with undue amounts of subsoil during any operation at the source or during placing or spreading will be rejected and shall be replaced by the Contractor with acceptable material.

RECEIVED
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SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW DRIVE | SOUTH BURLINGTON, VT 05403
802-864-2323 | FAX: 802-864-2271 web: www.cea-vt.com

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DRAWN: MAB
CHECKED: SAV
APPROVED: SAV

OWNER:

BURLINGTON COLLEGE

351 NORTH AVE
BURLINGTON VERMONT
05401

PROJECT:

BUILDING RENOVATION AND SITE IMPROVEMENTS
329, 351 NORTH AVE.

BURLINGTON, VT

LOCATION MAP
1" = 2000'

DATE	CHECKED	REVISION
12/18/15	SAV	LOCAL PLAN SUBMITTAL

SITE SPECIFICATIONS

DATE: 12/18/2015
SCALE: NONE
PROJ. NO.
DRAWING NUMBER: C5.1

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PART 3 – EXECUTION

3.01 SUBGRADE PREPARATION

A. Clean subgrade of all stumps, stones, roots, trash or other materials which might hinder proper tillage or spreading.

B. All surfaces on which topsoil is to be placed shall be graded to a reasonably true surface and scarified by raking, discing or other approved means to a minimum depth of two inches before placing topsoil.

3.03 PLACING TOPSOIL

A. Minimum final depth of topsoil shall be 4 inches.

B. Place topsoil when seeding operations can closely follow spreading operations. Use topsoil in relatively dry state.

C. Topsoil shall be spread and shaped to the lines and grades shown on the plans, or as directed by the Engineer. The depth stated in the contract to which the topsoil is to be placed is that required after final rolling of the material has taken place. All stones, roots and debris over 1¼ inch in diameter along with any sodding weeds and other undesirable material shall be removed.

D. After shaping and grading, all trucks and other equipment shall be excluded from the topsoiled area to prevent excessive compaction. The Contractor shall perform such work as required to provide a friable surface for seed germination and plant growth prior to seeding.

E. It shall be the Contractor's responsibility to restore to the line, grade and surface all eroded areas with approved material and to keep topsoiled areas in acceptable condition until the completion of the work.

SEEDING

PART 1 – GENERAL

1.1 Section Includes:

A. Seeding.

1. Furnish all labor, materials and equipment to complete all seeding work as shown on the drawings and specified herein.

2. Except where otherwise shown or specified, the Contractor shall seed all areas where new contours are shown on the drawings and all areas where existing ground cover has been disturbed by the Contractor's operations.

1.2 SUBMITTALS

A. Product Data: For each type of product indicated.

1.3 PROJECT CONDITIONS

Planting Restrictions: Seeding and initial fertilizing shall be done between May 1st and September 15th unless otherwise authorized. Seeding shall not be done during windy weather or when the ground is frozen, excessively wet, or otherwise untillable. If seeding is done during July or August, additional mulch material may be required. Coordinate planting periods with initial maintenance periods to provide required maintenance from date of Substantial Completion.

PART 2 – PRODUCTS

2.1 SEED

A. Conservation Seed Mix:

Kind of Seed	Minimum Purity	Minimum Germination	Lbs/Acre
Creeping Red Fescue	98%	85%	22.5
Tall Fescue	95%	95%	22.5
Red Top	95%	90%	3
Birdsfoot Trefoil	98%	85%	9
Annual Ryegrass	95%	85%	3
		TOTAL =	60

2.2 INORGANIC SOIL AMENDMENTS

A. Lime: ASTM C 602, agricultural limestone containing a minimum of 85 percent calcium carbonate equivalent and as follows:

1. Class: T, with a minimum of 99 percent passing through No. 8 sieve and a minimum of 75 percent passing through No. 60 sieve.

2.3 FERTILIZER

A. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium.

B. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium.

2.4 MULCHES

A. Mulch: Provide air-dry, clean, mildew- and seed-free, hay or threshed straw of wheat, rye, oats, or barley.

B. Compost Mulch: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 1-inch sieve; soluble salt content of 2 to 5 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:

1. Organic Matter Content: 50 to 60 percent of dry weight.

PART 3 – EXECUTION .

3.1 PREPARATION

A. Protect structures, utilities, sidewalks, pavements, and other facilities, trees, shrubs, and plantings from damage caused by planting operations.

1. Protect adjacent and adjoining areas from hydroseeding and hydromulching overspray.

2. Protect grade stakes set by others until directed to remove them.

B. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

C. Newly Graded Subgrades: Loosen subgrade to a minimum depth of 4 inches. Remove stones larger than 2 inches in any dimension and sticks, roots, rubbish, and other extraneous matter.

1. Apply fertilizer directly to subgrade before loosening.
   a. Delay mixing fertilizer with planting soil if planting will not proceed within a few days.
   b. Mix lime with dry soil before mixing fertilizer.

D. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Grade to within plus or minus 1 inch of finish elevation. Roll and rake, remove ridges, and fill depressions to meet finish grades. Limit finish grading to areas that can be planted in the immediate future.

E. Moisten prepared areas before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.

F. Before planting, restore areas if eroded or otherwise disturbed after finish grading.

3.2 APPLICATION RATES

A. When a soil test is not available, the following minimum amounts should be applied:

1. Agricultural limestone: 2 tons/acre.

2. Nitrogen (N): 50 lbs./acre.

3. Phosphate: 100 lbs./acre.

4. Potash: 100 lbs./acre.

   a. This is the equivalent of 500 lbs./acre of 10-20-20 fertilizer or 1,000 lbs./acre of 5-10-10.

5. Hay mulch: 2 tons/acre.

3.3 SEEDING

A. Sow seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.

1. Do not use wet seed or seed that is moldy or otherwise damaged.

2. Do not seed against existing trees. Limit extent of seed to outside edge of planting saucer.

B. Rake seed lightly into top 1/8 inch of soil, roll lightly, and water with fine spray.

C. Protect seeded areas with slopes exceeding 1:3 with erosion-control blankets installed and stapled according to manufacturer's written instructions.

D. Protect seeded areas from hot, dry weather or drying winds by applying mulch within 24 hours after completing seeding operations. Soak areas, scatter mulch uniformly to a depth of 3/16 inch, and roll surface smooth.

3.4 HYDROSEEDING

A. Hydroseeding: Mix specified seed, fertilizer, and fiber mulch in water, using equipment specifically designed for hydroseed application. Continue mixing until uniformly blended into homogeneous slurry suitable for hydraulic application.

1. Mix slurry with fiber-mulch manufacturer's recommended tackifier.

2. Apply slurry uniformly to all areas to be seeded in a one-step process. Apply slurry at a rate so that mulch component is deposited at not less than 1500-lb/acre dry weight, and seed component is deposited at not less than the specified seed-sowing rate.

3.5 MAINTENANCE

A. Maintain and establish seeding by watering, fertilizing, weeding, mowing, trimming, replanting, and other operations. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth lawn. Provide materials and installation the same as those used in the original installation.

1. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.

2. Begin maintenance immediately after each area is planted and continue until acceptable lawn is established, but for not less than the following periods:

   a. Seeded Areas: 90 days from date of Substantial Completion.

   b. When initial maintenance period has not elapsed before end of planting season, or if seeding is not fully established, continue maintenance during next planting season.

3.6 SATISFACTORY CONDITIONS

A. Installations shall meet the following criteria as determined by Engineer/Owner:

1. Satisfactory Seeded Area: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. and bare spots not exceeding 5 by 5 inches.

B. Use specified materials to reestablish area that do not comply with requirements and continue maintenance until areas are satisfactory.

3.7 CLEANUP AND PROTECTION

A. Promptly remove soil and debris, created by work. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.

B. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after lawn is established.

C. Remove nondegradable erosion-control measures after grass establishment period.

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SITE ENGINEER:
CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com
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OWNER:
BURLINGTON COLLEGE
351 NORTH AVE
BURLINGTON VERMONT
05401

PROJECT:
BUILDING RENOVATION AND SITE IMPROVEMENTS
329, 351 NORTH AVE.
BURLINGTON, VT

LOCATION MAP
1" = 2000'

DATE	CHECKED	REVISION
12/18/15	SAV	LOCAL PLAN SUBMITTAL

SITE SPECIFICATIONS

DATE 12/18/2015
SCALE NONE
PROJ. NO. 14215
DRAWING NUMBER C5.2

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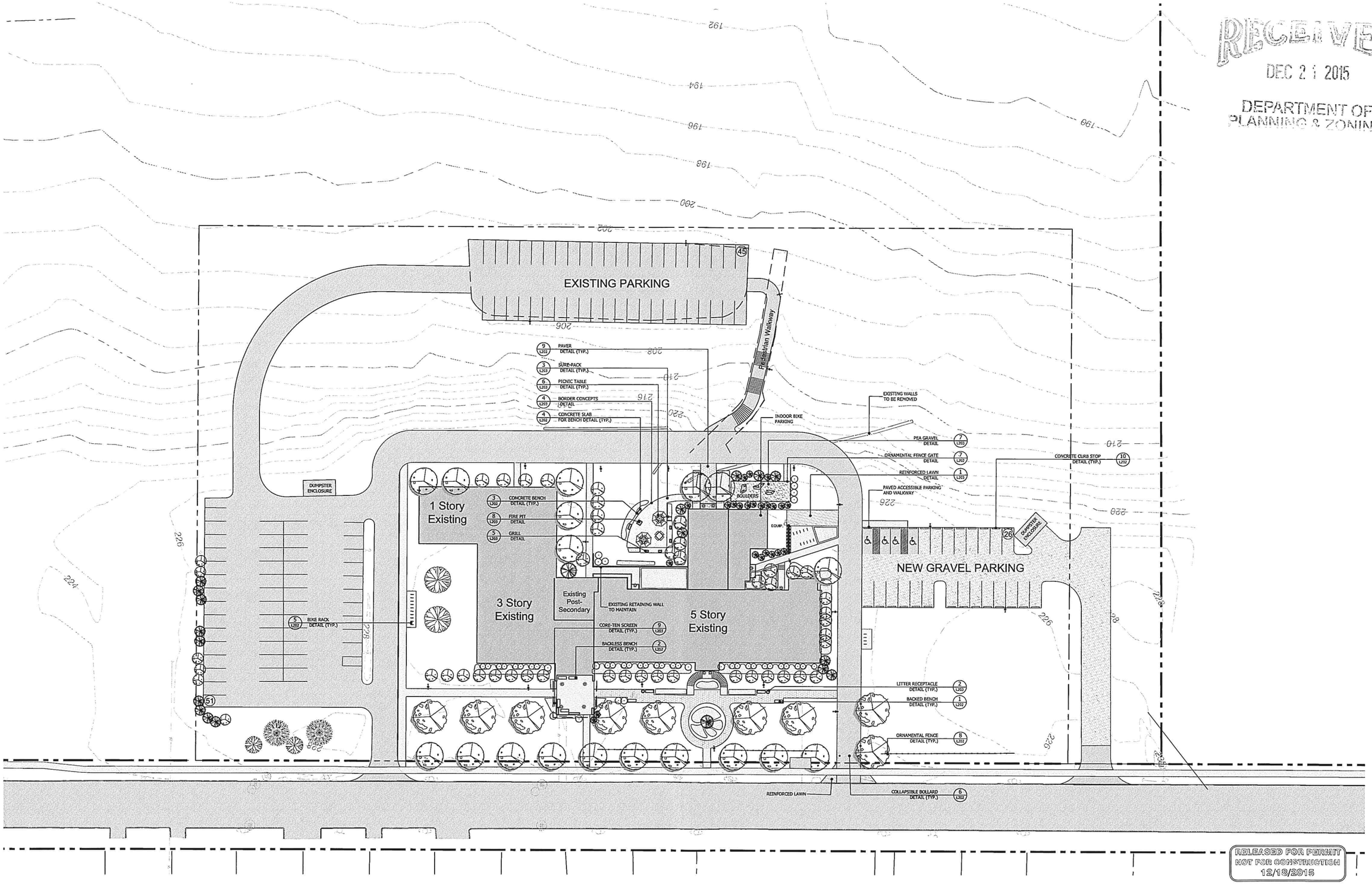

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12/18/2015

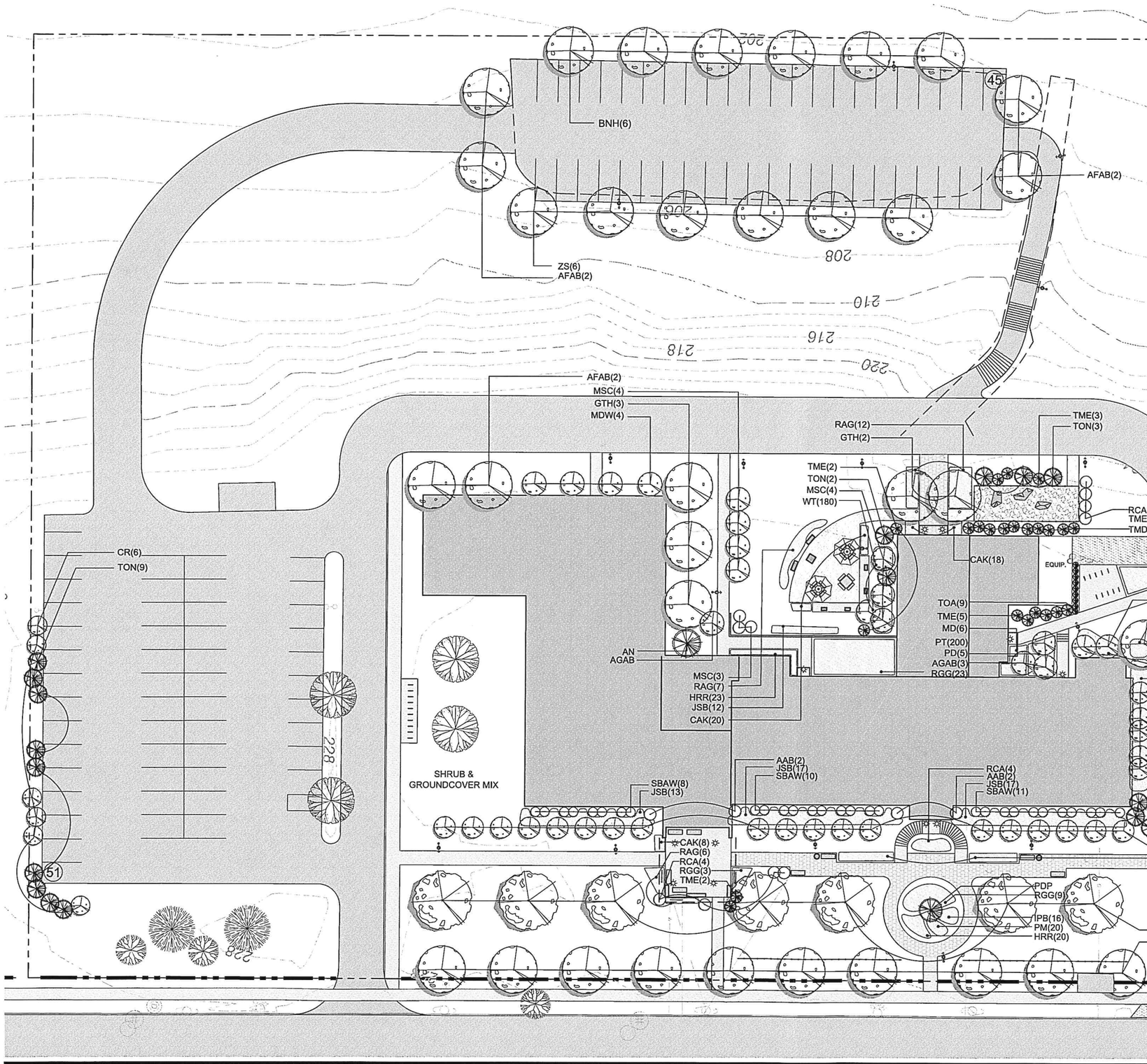
T. J. Boyle Associates, LLC

landscape architects planning consultants

revisions	date	revisions	date
Sketch Plan Submission	2/26/15	Preliminary Plat Resubmission	12/18/15

MJB design by	TKD drawn by	7/1/2015 date	351 North Ave

sheet no: L-100



351 North Avenue - Planting Schedule

Trees

Qty.	Code	Scientific Name	Common Name	Size	Spec	Remarks	Notes
1	AN	ABIES nordmanniana	Nordmann Fir	12' Ht.	B&B		
10	AC	ACER campestre	Hedge Maple	2 1/2" Cal.	B&B		
11	AFAB	ACER x freemani 'Autumn Blaze'	Autumn Blaze Maple	3" cal.	B&B		
11	AGAB	AMELANCHIER x g. 'Autumn Brilliance'	Autumn Brilliance Serviceberry	6' Ht.	B&B		multi-stem, 3-4 stems
6	ASGM	ACER saccharum 'Green Mountain'	Green Mountain Sugar Maple	2 1/2" Cal.	B&B		
6	BNH	BETULA nigra 'Heritage'	Heritage River Birch	2 1/2" Cal.	B&B		single stem
5	CO	CELTIS occidentalis	Common Hackberry	2 1/2" Cal.	B&B		
6	GTH	GLEDITSIA t.i. 'Halka'	Halka Honeylocust	3" cal.	B&B		
1	PDP	PINUS d. 'Pendula'	Weeping Japanese Red Pine	36"	#10 Cont.		spreading form
8	PA	PICEA abies	Norway Spruce	8-10' Ht.	B&B		
19	PMR	PRUNUS domestica 'Mount Royal'	Mount Royal Plum	1 1/2" Cal.	15 Gal. Cont.		
4	MDW	MALUS 'Donald Wyman'	Donald Wyman Crabapple	2 1/2" Cal.	B&B		
11	MSC	MAGNOLIA stellata 'Centennial'	Centennial Star Magnolia	8' Ht.	B&B		
17	TON	THUJA occidentalis 'Nigra'	Techny Arborvitae	12' Ht.	B&B		
7	UAP	ULMUS americana 'Princeton'	Princeton Elm	2 1/2" Cal.	B&B		
6	ZS	ZELKOVA serrata 'Greenvase'	Greenvase Zelkova	2 1/2" Cal.	B&B		

Shrubs

Qty.	Code	Scientific Name	Common Name	Size	Spec	Remarks	Notes
4	AAB	ARONIA arbutifolia 'Brillantissima'	Brilliant Red Chokeberry	4' Ht.	B&B		
6	CR	CORNUS racemosa	Gray Dogwood	30" Ht.	B&B		
73	JSB	JUNIPERUS sabina 'Broadmoor'	Broadmoor Juniper	24" Ht.	#5 Cont.		
41	MD	MICROBIOTA decussata	Siberian Cypress	15" Ht.	#3 Cont.		4' O.C., install w subdue drench at time of plan for transplant shock
12	RCA	RHODODENDRON cat. 'Album'	White Catawba Rhododendron	3-4" Ht.	B&B		
29	SBAW	SPIRAEA x bumalda 'Anthony Waterer'	Anthony Waterer Spirea	24"	B&B		
9	TOA	THUJA occidentalis 'Aurea'	Golden Globe Arborvitae	24" Ht.	B&B		2.5' O.C.
5	TMD	TAXUS x m. 'Densiformis'	Dense Yew	30" Ht.	B&B		
17	TME	TAXUS x m. 'Everlow'	Everlow Yew	36" Ht.	B&B		3.5' O.C.

Groundcovers, Ferns & Perrenials

Qty.	Code	Scientific Name	Common Name	Size	Spec	Remarks	Notes
132	CAK	CALAMAGROTIS x ac. 'Karl Foerster'	Karl Foerster Reed Grass	Clump	#2 Cont.		24" O.C.
8	DP	DENNSTAEDTIA punctiloba	Hay Scented Fern	Clump	#2 Cont.		
43	HRR	HEMEROCALLIS 'Rosy Returns'	Rosy Returns Daylily	Clump	#2 Cont.		24" O.C.
16	IPB	IRIS c 'Powder Blue Giant'	Powder Blue Giant Crested Iris		#2 Cont.		24" O.C.
13	PD	PHLOX divoricata 'Mary Helen'	Mary Helen Phlox	Clump	#1 Cont.		
240	PT	PACHYSANDRA t. 'Green Sheen'	Green Sheen Pachysandra	Clump	Quart Cont.		15" O.C.
20	PM	PERENNIAL MIX		Clump	#2 Cont.		18" O.C.
35	RGG	RHUS aromatica 'Green Globe'	Green Globe Fragrant Sumac		#3 Cont.		5' O.C.
25	RAG	RHUS aromatica 'Gro-low'	Gro-low Fragrant Sumac		#3 Cont.		5' O.C.
180	WT	WALDSTEINIA ternata	Barren Strawberry		Quart Cont.		12" O.C.

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12/18/2015

T. J. Boyle Associates, LLC

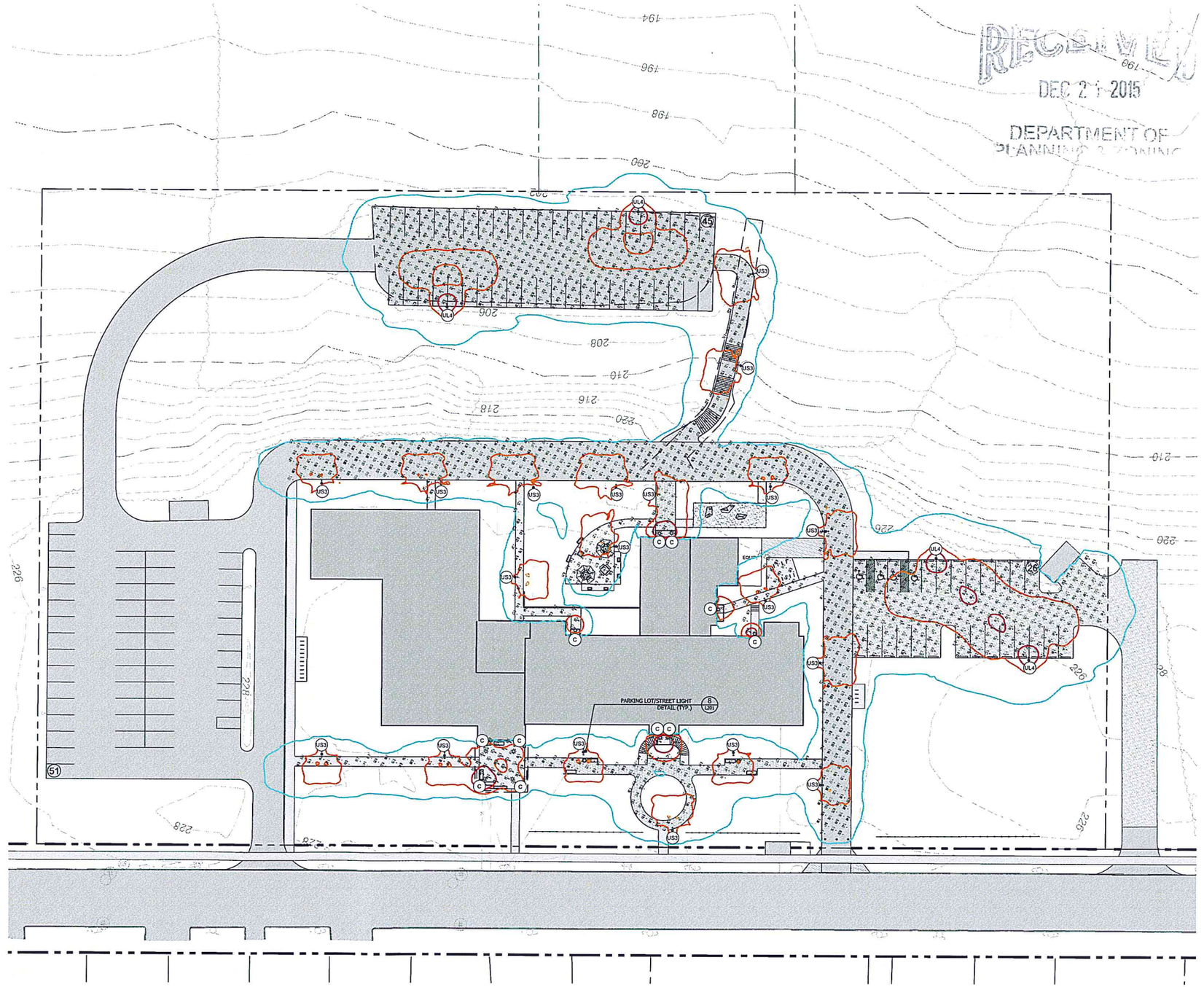
revisions	date	revisions	date

landscape architects - planning consultants

MJB | TKD | 7/1/2015

351 North Avenue

sheet no:



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LEGEND

- 1.00 LIGHT LEVEL
- 0.50 LIGHT LEVEL
- 0.1 LIGHT LEVEL
- PROPOSED LED UNIVERSE FIXTURE (14', 15' HEIGHT) (ARROW INDICATES LUMINAIRE INSTALLATION DIRECTION)

GENERAL LIGHTING NOTES:

1. ALL FIXTURES FULL CUT-OFF
2. CRI MINIMUM OF 70
3. ALL CALCULATIONS SHOWN IN FOOTCANDLES
4. NEARBY EXISTING FIXTURES NOT INCLUDED IN CALCULATIONS

CALCULATION STATISTICS:

AREA	MAX	MIN	AVG	MAX / MIN	AVG / MIN
ROAD/PARKING	3.59	.27	.91	13.10	3.31
SIDEWALKS	2.93	.20	.80	14.60	3.98
CANOPY	3.02	.47	1.40	6.41	2.98

LUMINAIRE SCHEDULE

LABEL	QTY	SYMBOL	MANUFACTURER/FIXTURE/ ORDERING INFO	LAMP	VOLTAGE	FINISH	POLE	ARM	FINISH	MOUNTING HT.
UL4	4		BEACON - URBAN LARGE LED 3000K (TYPE 4) MRDS-26-24NB-27-3K-T4-UNV-NRNW-BBT	24 LED 3K	120*	BBT	SHO4-S-14**-4M-OT-BBT	AA-44-S-4-B-BBT	BBT	25'
US3	19		BEACON - URBAN SMALL LED 3000K (TYPE 3) MRDS-21-24NB-27-3K-T3-UNV-NRNW-BBT	24 LED 3K	120*	BBT	SHO6-S-25-6Q-OT-BBT	AA-44-S-6-B-BBT	BBT	12.5'
C	11		PRESCOLITE - LITEFRAME 6" LED OPEN DOWNLIGHT LF6LEDGR ALL CAN LIGHTS TO BE DIMMED TO 35 OR 40%		120*	BLK				8' - 14'

NOTE:
* VOLTAGE TO BE VERIFIED BY ELECTRICAL ENGINEER PRIOR TO ORDERING
** CUT POLE TO 12.5'

NOTE: Walkway Lighting - Light levels for pedestrian areas meet IESNA recommendation per (IESNA) *Lighting for Exterior Environments* (RP-33-99), which recommends a MINIMUM maintained average horizontal illuminance level of 0.5 footcandles and a 4:1 horizontal average to minimum ratio. Light levels are specific to the intermediate area classification, which is defined as 'those areas of a municipality often characterized by moderately heavy nighttime pedestrian activity such as in block having libraries, community recreation centers, large apartment building, industrial buildings, or neighborhood retail stores.'

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351 North Ave

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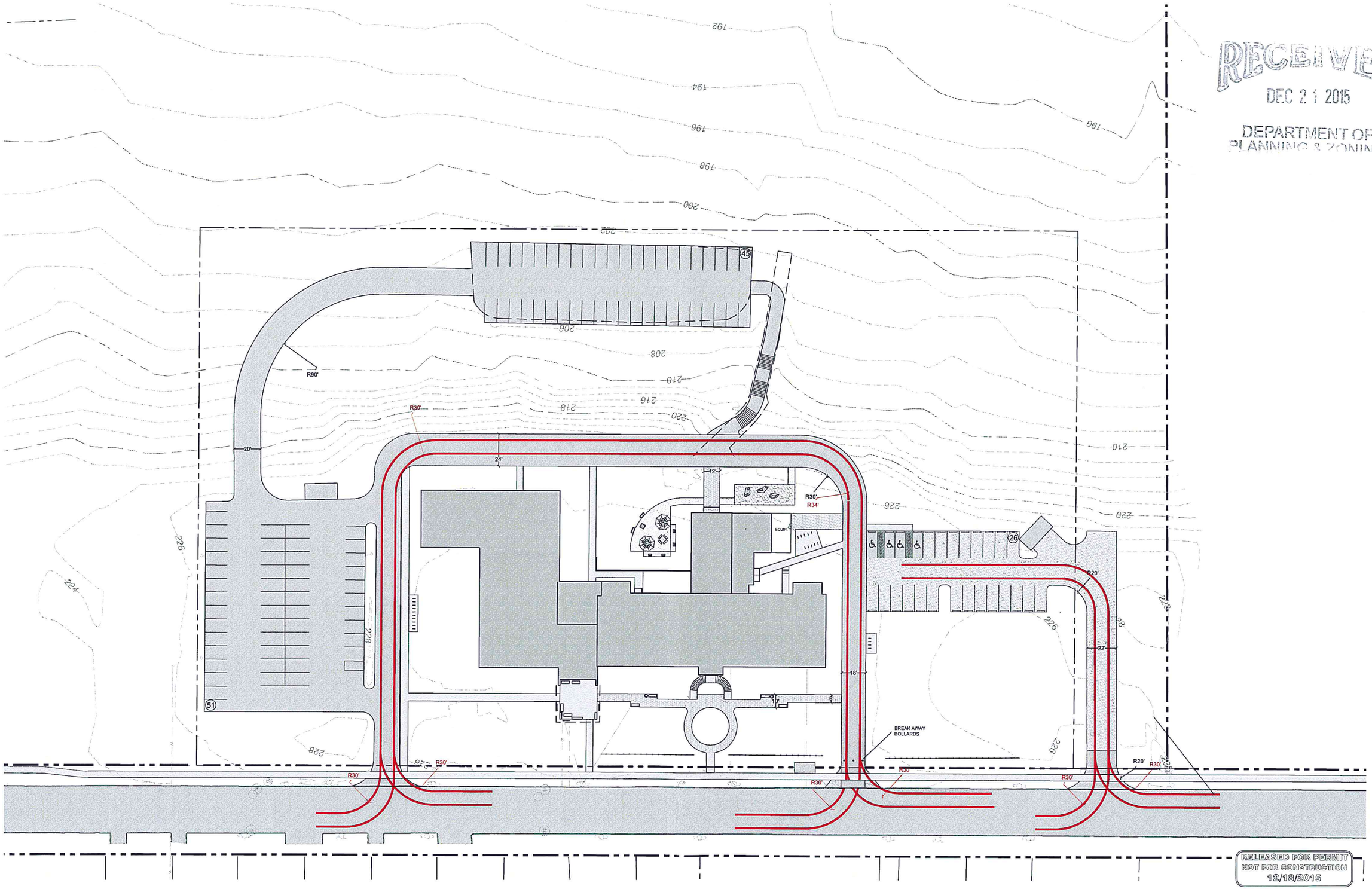

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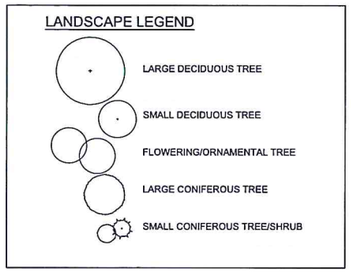
					TKD	TKD	7/1/2015		sheet no:



SHADE CALCULATIONS: Plant Sizes and Shadow Offset

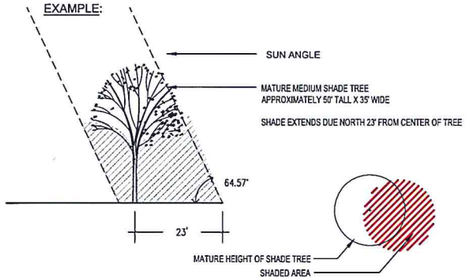
Trees	Mature Height	Mature Canopy Size	Shadow Offset
Large Deciduous	65'	33'	25.0'
Medium Deciduous	50'	40'	19.2'
Small Deciduous	30'	25'	11.5'
Ornamental Deciduous	15-20'	10'	7.5'
Large Coniferous	65'	30'	25.0'
Medium Coniferous	40'	15'	15.4'
Small Coniferous	20'	5-10'	7.5'

All non-conifer tree shadows calculated at a limbed up height of 20'

SUN ANGLE CALCULATION DATA FOR PROJECT LOCATION

LONGITUDE:	73 D 13' 53" WEST
LATITUDE:	44 D 29' 33" NORTH
CALCULATION DATE:	JUNE 21, 2015
ELEVATION:	222'
TIME:	SOLAR NOON (11:54 AM EST)
RESULTING SUN ALTITUDE ANGLE:	64.57°

EXAMPLE:



SHADE CALCULATION TOTALS

TOTAL IMPERVIOUS SURFACE IN PARKING LOT 1 = 8,006 SF

TOTAL SHADE FROM MATURE TREE HEIGHTS LOT 1 = 5,080 SF

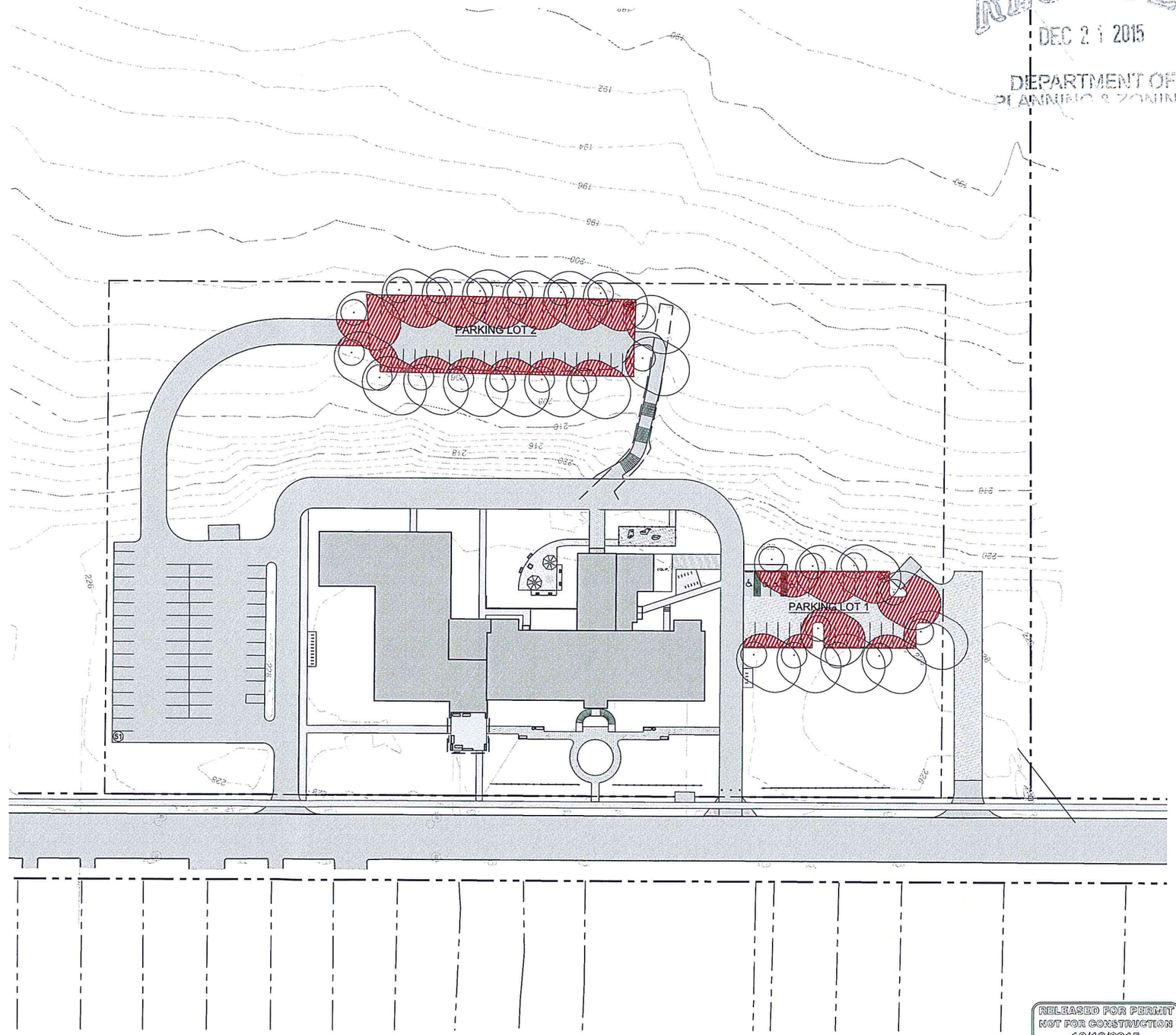
TOTAL SHADE = 63.4%

TOTAL IMPERVIOUS SURFACE IN PARKING LOT 2 = 12,180 SF

TOTAL SHADE FROM MATURE TREE HEIGHTS LOT 2 = 7,685 SF

TOTAL SHADE = 63.1%

TOTAL SHADE REQUIRED = 30%



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Preliminary Plat Submission	7/1/15
Preliminary Plat Resubmission	12/18/15

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design by	drawn by	date		sheet no:

TREE PROTECTION NOTES:

1. PRIOR TO ANY CONSTRUCTION ACTIVITY, ALL TREE PRESERVATION MEASURES MUST BE IMPLEMENTED.

2. PRIOR TO CONSTRUCTION CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS.

3. TREE PROTECTION FENCING SHALL REMAIN INTACT THROUGHOUT ALL CONSTRUCTION ACTIVITY.

4. PRIOR TO THE SITE VISIT ALL TREE PRESERVATION AREAS SHALL BE STAKED OUT ON SITE BY SURVEY.

5. NO MATERIALS OR EQUIPMENT SHALL BE STORED, STOCKPILED OR OPERATED WITHIN TREE PROTECTION AREAS.

6. TREE PROTECTED AREAS WILL BE LEFT AS NATURAL AS POSSIBLE.

7. THE CONTRACTOR CHOSEN FOR THIS WORK WILL BE AN EXPERIENCED TREE SERVICE FIRM THAT HAS SUCCESSFULLY COMPLETED TREE PROTECTION, ROOT PRUNING, AND TRIMMING WORK, SIMILAR TO THAT REQUIRED FOR THIS PROJECT.

8. IN AREAS OF EXCAVATION NEAR TREE, IDENTIFY AND CUT ROOTS IN CONSULTATION WITH OWNER.

9. REMOVE POORLY ATTACHED AND RUBBING LIMBS. CLEAN THE CROWN OF DEAD, DISEASED AND WEAK LIMBS. THINNING OF HEALTHY LIMBS IS NOT RECOMMENDED AT THIS TIME.

10. ANY NECESSARY TRENCHING SHALL BE IMMEDIATELY BACKFILLED WITH REMOVED SOIL OR OTHER HIGHLY ORGANIC SOIL.

11. AN AIR SPADE IS TO BE USED TO EXCAVATE DOWN TO MINIMUM OF 2'. SEE DETAIL 8B/L200.

12. THERE WILL BE NO EXCAVATION FOR PROPOSED SITE WORK WITHIN FENCED AREA.

GENERAL PLANTING NOTES:

1. THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO STARTING WORK.

2. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING SHOWN ON ALL DRAWINGS.

3. ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE CURRENT AMERICAN STANDARD FOR NURSERY STOCK (ANSI) PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

4. NO PLANT SHALL BE PUT INTO THE GROUND BEFORE ROUGH GRADING HAS BEEN FINISHED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT OR EQUAL.

5. PLANTS SHALL BE INSTALLED SUCH THAT THE ROOT FLARE IS AT OR SLIGHTLY ABOVE FINAL GRADE (DUE TO NURSERY PRACTICES THIS MAY REQUIRE REMOVING SOIL FROM THE TOP OF THE ROOT BALL TO LOCATE THE ROOT FLARE.

6. ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN AS SPECIFIED. NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL ROOT WRAPPING MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED AT THE TIME OF PLANTING.

7. WITH CONTAINER GROWN STOCK, THE CONTAINER SHALL BE REMOVED AND THE CONTAINER BALL SHALL BE CUT THROUGH THE SURFACE IN TWO VERTICAL LOCATIONS.

8. THE DAY PRIOR TO PLANTING, THE LOCATION OF ALL TREES AND SHRUBS SHALL BE STAKED FOR APPROVAL BY THE PROJECT LANDSCAPE ARCHITECT OR EQUAL.

9. LANDSCAPE ARCHITECT MAY REQUIRE ALL PLANTS BE SPRAYED WITH AN ANTIDESSICANT WITHIN 24 HOURS AFTER PLANTING. IN TEMPERATE ZONES, ALL PLANTS SHALL BE SPRAYED WITH AN ANTIDESSICANT AT THE BEGINNING OF THEIR FIRST WINTER.

10. ALL PLANT BEDS MUST HAVE A MINIMUM PLANT BED DEPTH OF 18" WITH A 2/3 TOPSOIL TO 1/3 COMPOST MIX. REMOVE SUBGRADE AND OTHER FILL IN PLANTING AREAS ON SITE.

11. ALL PLANTS SHALL BE INSTALLED AS PER DETAILS AND THE CONTRACT SPECIFICATIONS.

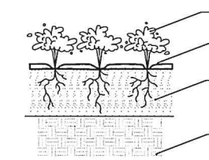
12. STAKING PLANTS IS AT THE DISCRETION OF THE CONTRACTOR. ONLY STAKE PLANTS AS SPECIFIED BY LANDSCAPE ARCHITECT.

13. THE LANDSCAPE CONTRACTOR SHALL PROVIDE AMENDED BACKFILL AS PER THE CONTRACT SPECIFICATIONS.

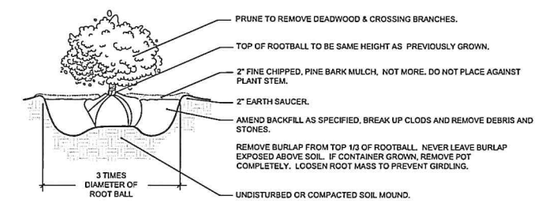
14. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24 HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL THEN BE WATERED WEEKLY, IF NECESSARY, DURING THE FIRST GROWING SEASON.

15. THE LANDSCAPE CONTRACTOR SHALL REFER TO THE CONTRACT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

16. THE LANDSCAPE CONTRACTOR SHALL REFER TO THE PLANT LIST FOR SEASONAL REQUIREMENTS RELATED TO THE TIME OF PLANTING.



4 / L200 TYPICAL GROUNDCOVER PLANTING
NTS



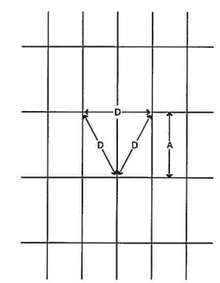
3 / L200 SHRUB PLANTING
NTS

PLANT SPACING CHART

Spacing 'D'	Row 'A'	Number of Plants	Area Unit
6" O.C.	5.2"	4.61	1 SQ. FT.
8" O.C.	6.93"	2.6	
10" O.C.	8.66"	1.66	
12" O.C.	10.4"	1.15	
15" O.C.	13.0"	7.38	10 SQ. FT.
18" O.C.	15.6"	5.12	
24" O.C.	20.8"	2.91	
30" O.C.	26.0"	1.55	
36" O.C.	30.0"	1.25	
4' O.C.	3.46'	7.25	100 SQ. FT.
5' O.C.	4.38'	4.61	
6' O.C.	5.2'	3.2	
8' O.C.	6.93'	1.8	
10' O.C.	8.66'	1.16	
12' O.C.	10.4'	8	1000 SQ. FT.
15' O.C.	13.0'	5	
20' O.C.	17.3'	2.88	
25' O.C.	21.65'	1.85	
30' O.C.	26.0'	1.29	
40' O.C.	34.6'	7.22	10,000 SQ. FT.

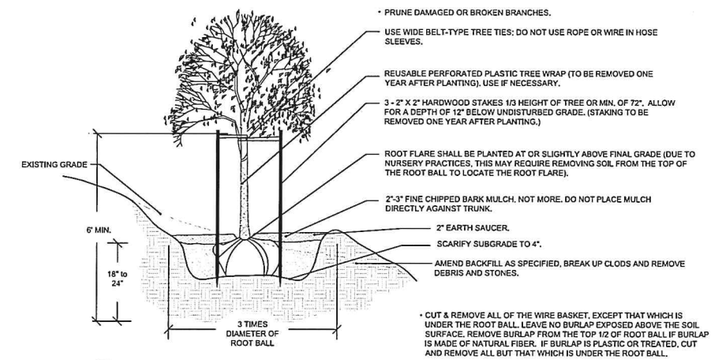
O.C. = ON CENTER

FOR USE WHEN PLANTS ARE SHOWN EQUIDISTANT FROM EACH OTHER (AS SHOWN)



PLANT SPACING CHART

7 / L200 PLANT SPACING CHART DETAIL
NTS



2 / L200 TREE PLANTING ON SLOPE DETAIL
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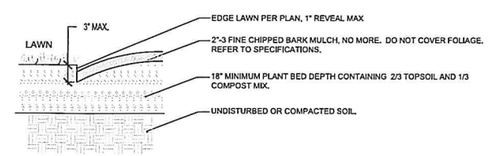

6 / L200 TYPICAL PLANT BED/PLANTING AREA DETAIL
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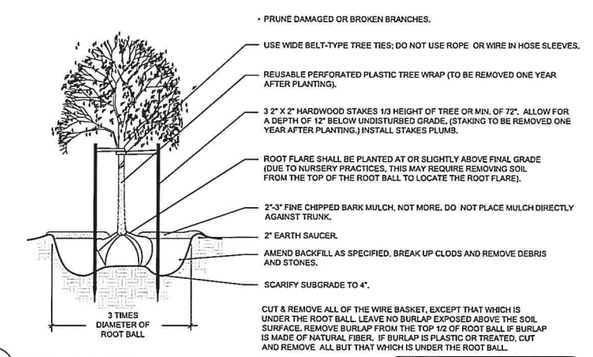

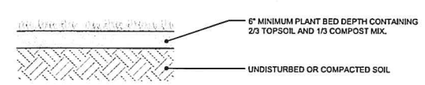

5 / L200 LAWN AREA/TOPSOIL & SEEDING DETAIL
NTS

1 / L200 TREE PLANTING DETAIL
NTS

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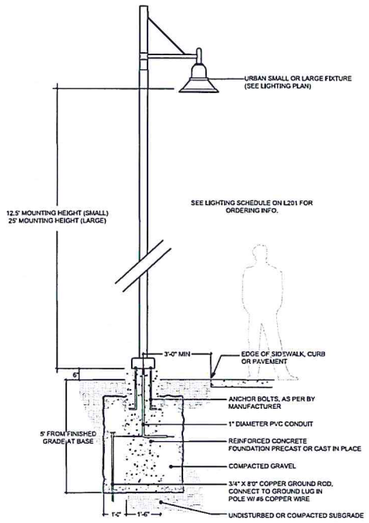
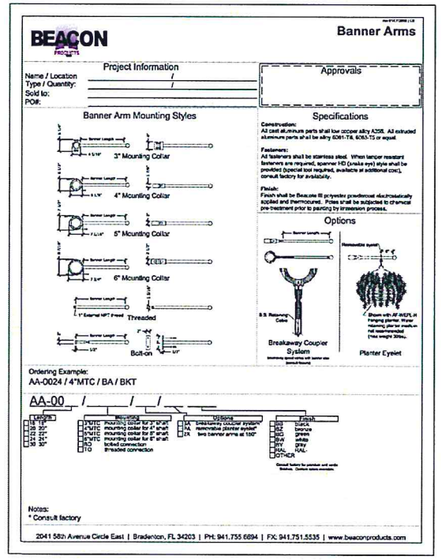
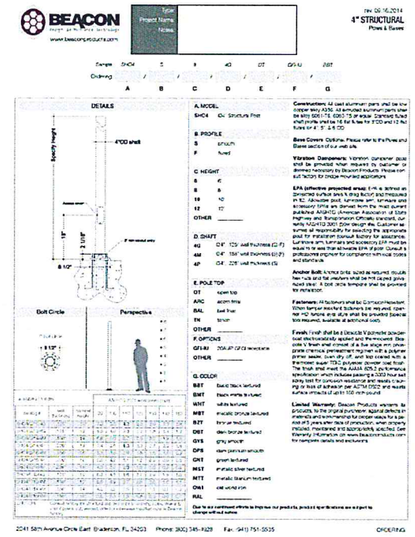


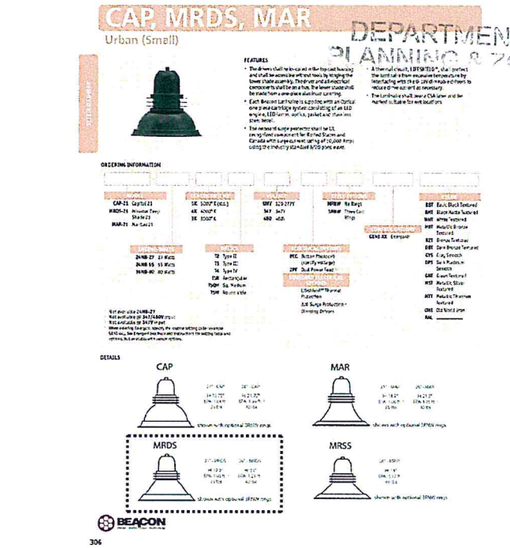
8 / L201 PARKING LOT/STREET LIGHT DETAIL
NTS



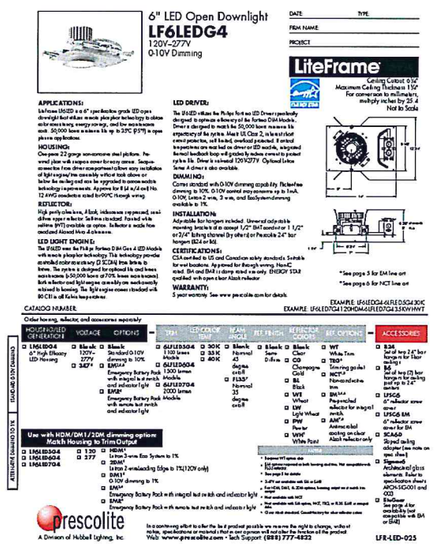
6 / L201 PEDESTRIAN POLE, 12.5' MOUNTING HEIGHT



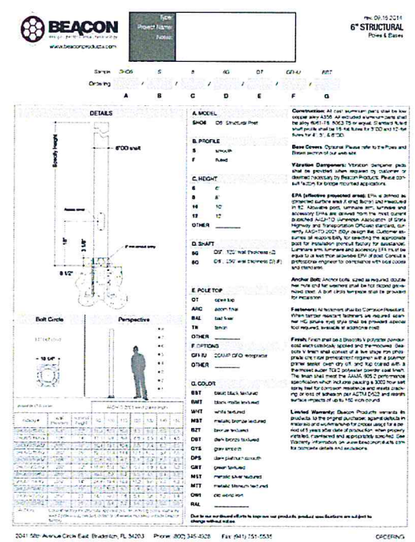
4 / L201 PEDESTRIAN POLE, 12.5' MOUNTING HEIGHT



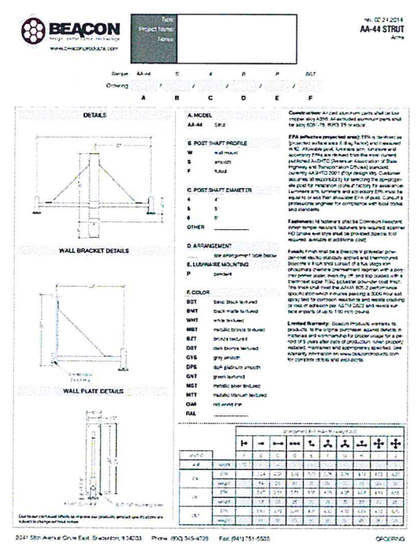
2 / L201 LED SITE FIXTURE - BEACON URBAN (SMALL)



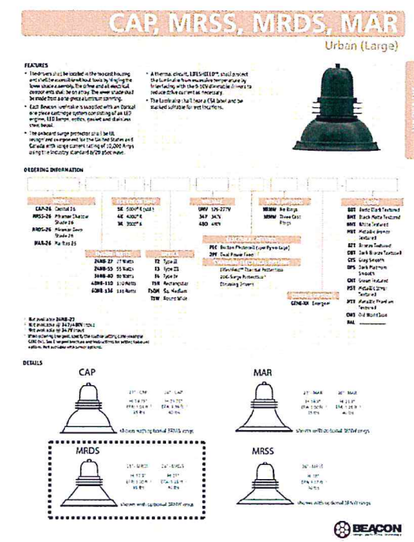
7 / L201 CANOPY LIGHT



5 / L201 SITE POLE, 25' MOUNTING HEIGHT



3 / L201 SITE AND PEDESTRIAN POLE ARM (SINGLE ARM)



1 / L201 LED SITE FIXTURE - BEACON URBAN (LARGE)

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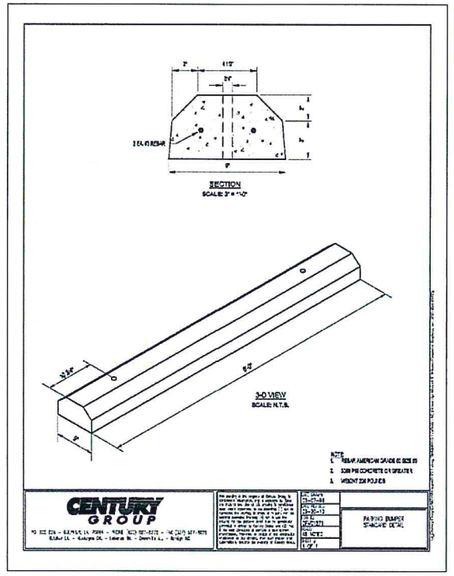
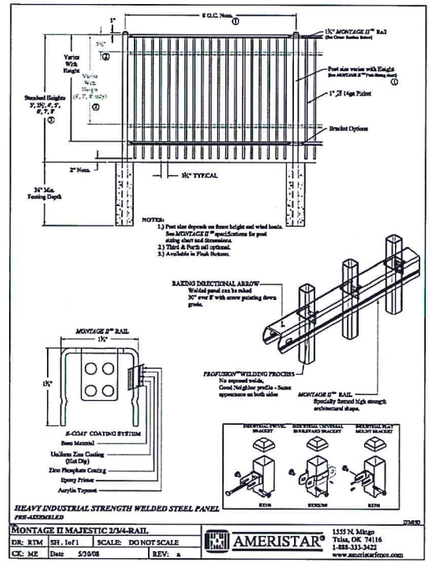
MJB | TKD | 7/1/2015

sheet no:



10 / L202 CONCRETE CURB STOP DETAIL

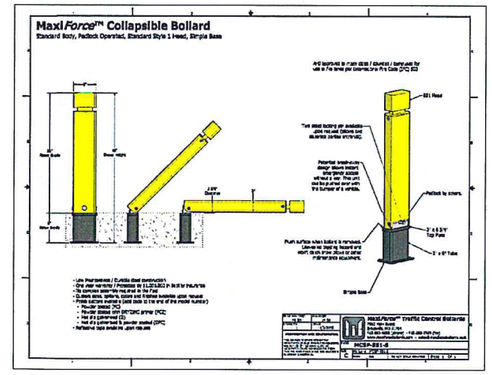
NTS



8 / L202 ORNAMENTAL FENCE DETAIL

QTY: 330 LF

NTS



6 / L202 COLLAPSIBLE BOLLARD DETAIL

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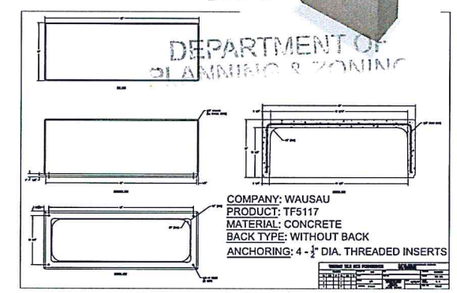
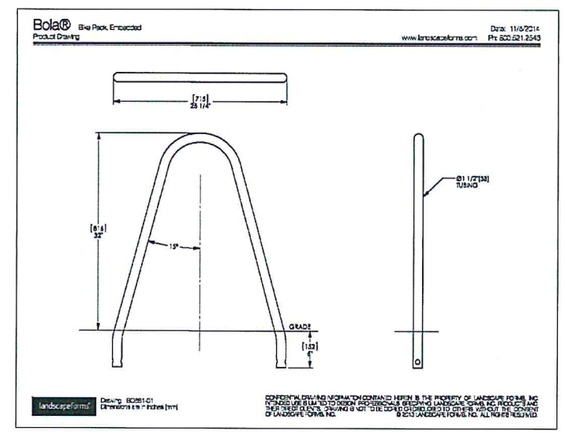


3 / L202 CONCRETE BENCH DETAIL

COLOR: FRENCH GRAY

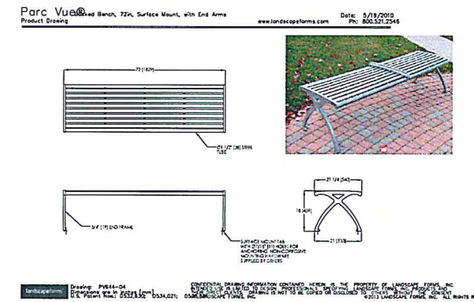
NTS



5 / L202 BIKE RACK DETAIL

COLOR: TITANIUM

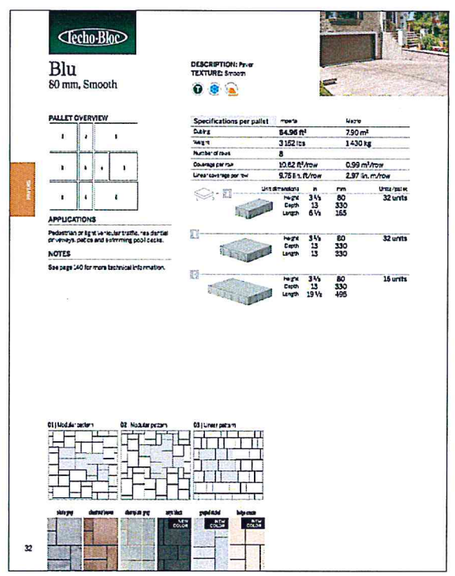
NTS



2 / L202 BACKLESS BENCH DETAIL

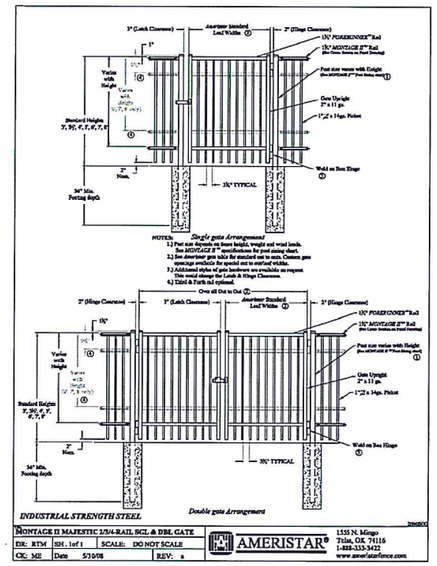
COLOR: TITANIUM

NTS



9 / L202 PAVER DETAIL

NTS



7 / L202 ORNAMENTAL FENCE GATE DETAIL

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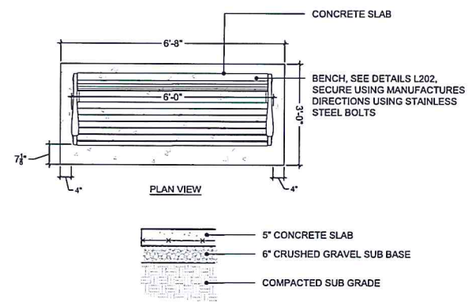

4 / L202 CONCRETE SLAB FOR BENCH DETAIL

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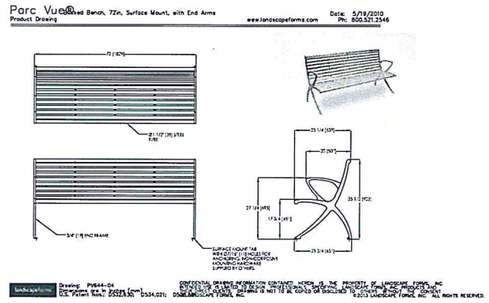

1 / L202 BACKED BENCH DETAIL

COLOR: TITANIUM

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landscape architects • planning consultants

TKD design by | TKD drawn by | 07/1/2015 date

351 North Ave

sheet no: L202

9 / L203 CORE-TEN SCREEN DETAIL — COLOR: WEATHERING STEEL

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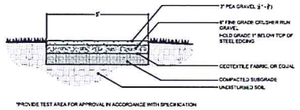
MANUFACTURER: THOS. BAKER
TYPE: SQUARE 38-in FIRE PIT
COLOR: WEATHERING STEEL

8 / L203 FIRE PIT DETAIL

NTS



7 / L203 PEA GRAVEL DETAIL

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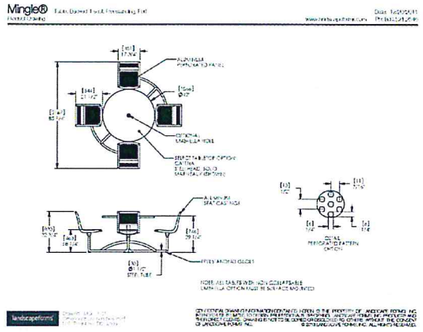

6 / L203 PICNIC TABLE DETAIL — COLOR: TITANIUM

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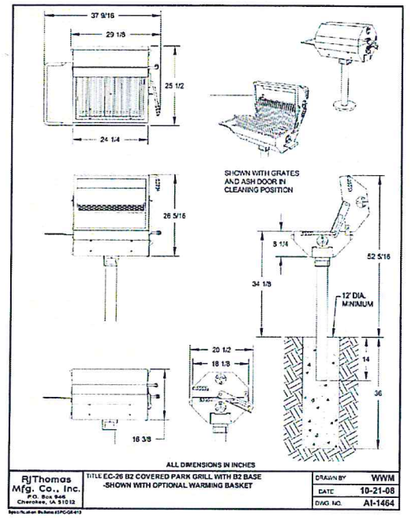

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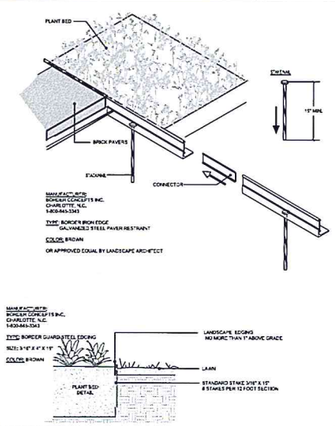

4 / L203 BORDER CONCEPTS DETAIL — COLOR: BLACK

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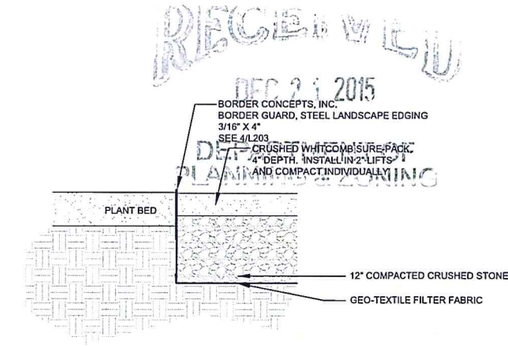

3 / L203 SURE-PAC DETAIL

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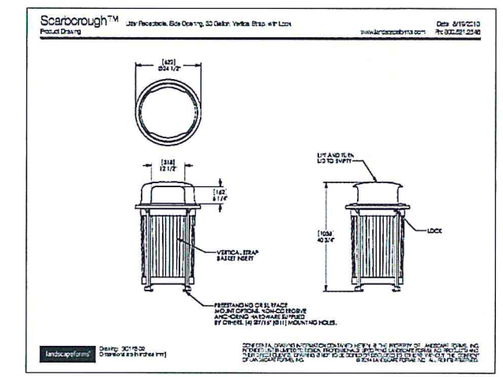

2 / L203 LITTER RECEPTACLE DETAIL — COLOR: TITANIU

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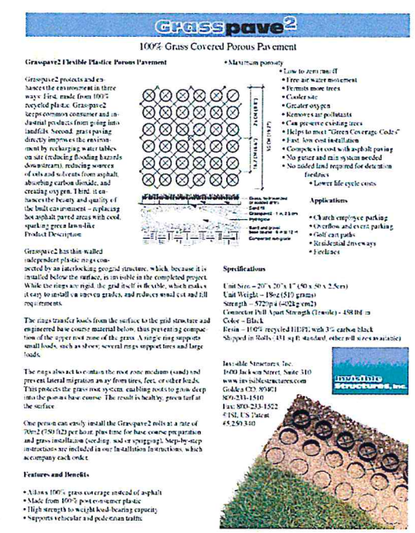

1 / L203 REINFORCED LAWN DETAIL

NTS

RELEASED FOR PERMIT
NOT FOR CONSTRUCTION
12/18/2015

REVISION	DATE
Preliminary Plat Resubmission	12/18/15

T. J. Boyle Associates, LLC

landscape architects • planning consultants

TKD	TKD	12/15/2015	351 North Ave
design by	drawn by	date	

sheet no: L203

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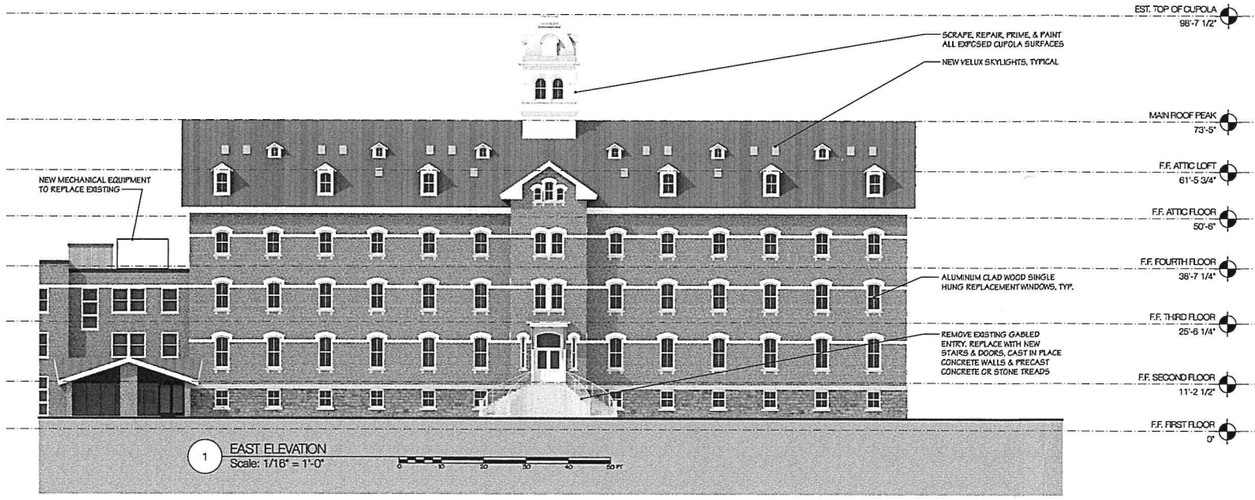

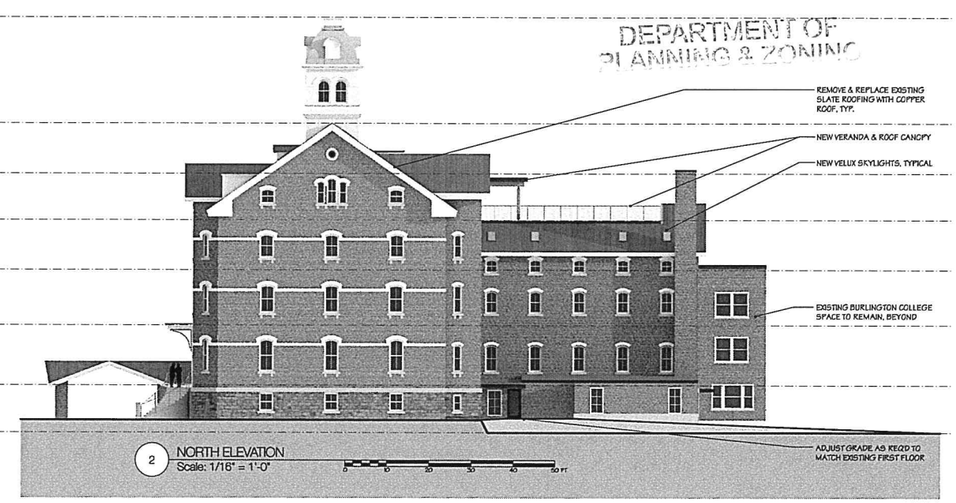

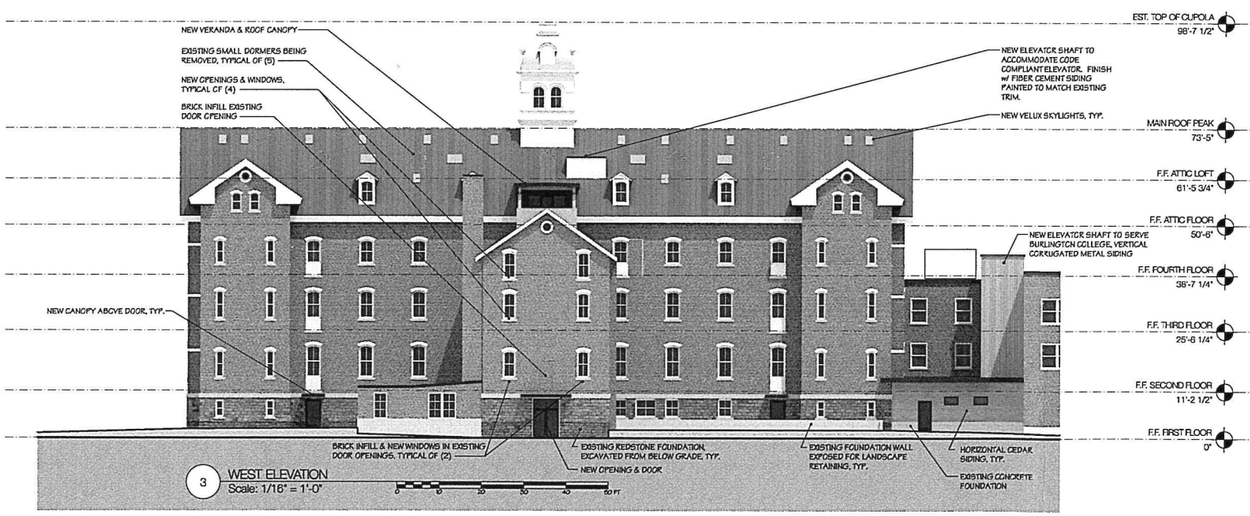

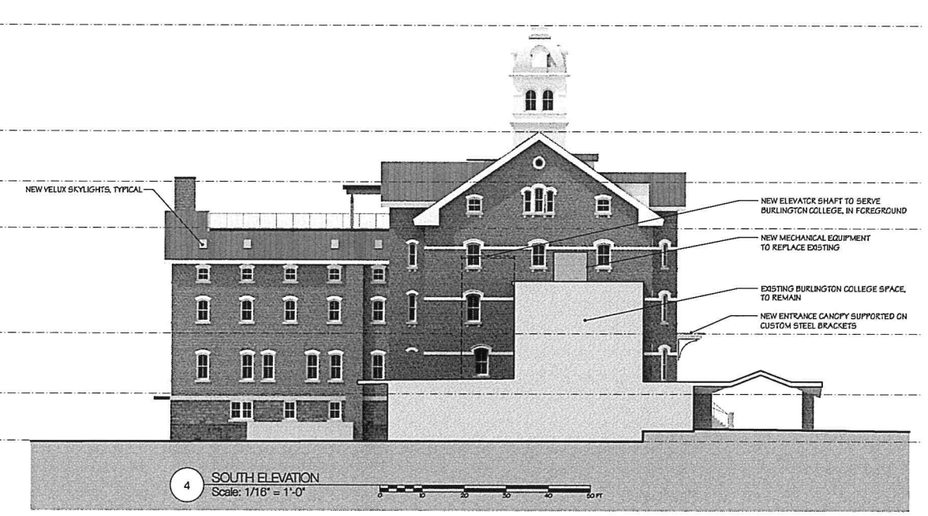

375 NORTH AVE

BURLINGTON, VERMONT

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DUNCAN - WISNIEWSKI ARCHITECTURE
A Professional Corporation

ZONING APPLICATION

Duncan Wisniewski
ARCHITECTURE
255 SOUTH CHAMPLAIN STREET
BURLINGTON, VERMONT 05401
T: 802.864.6693

DATE: 12.18.15

A2.1

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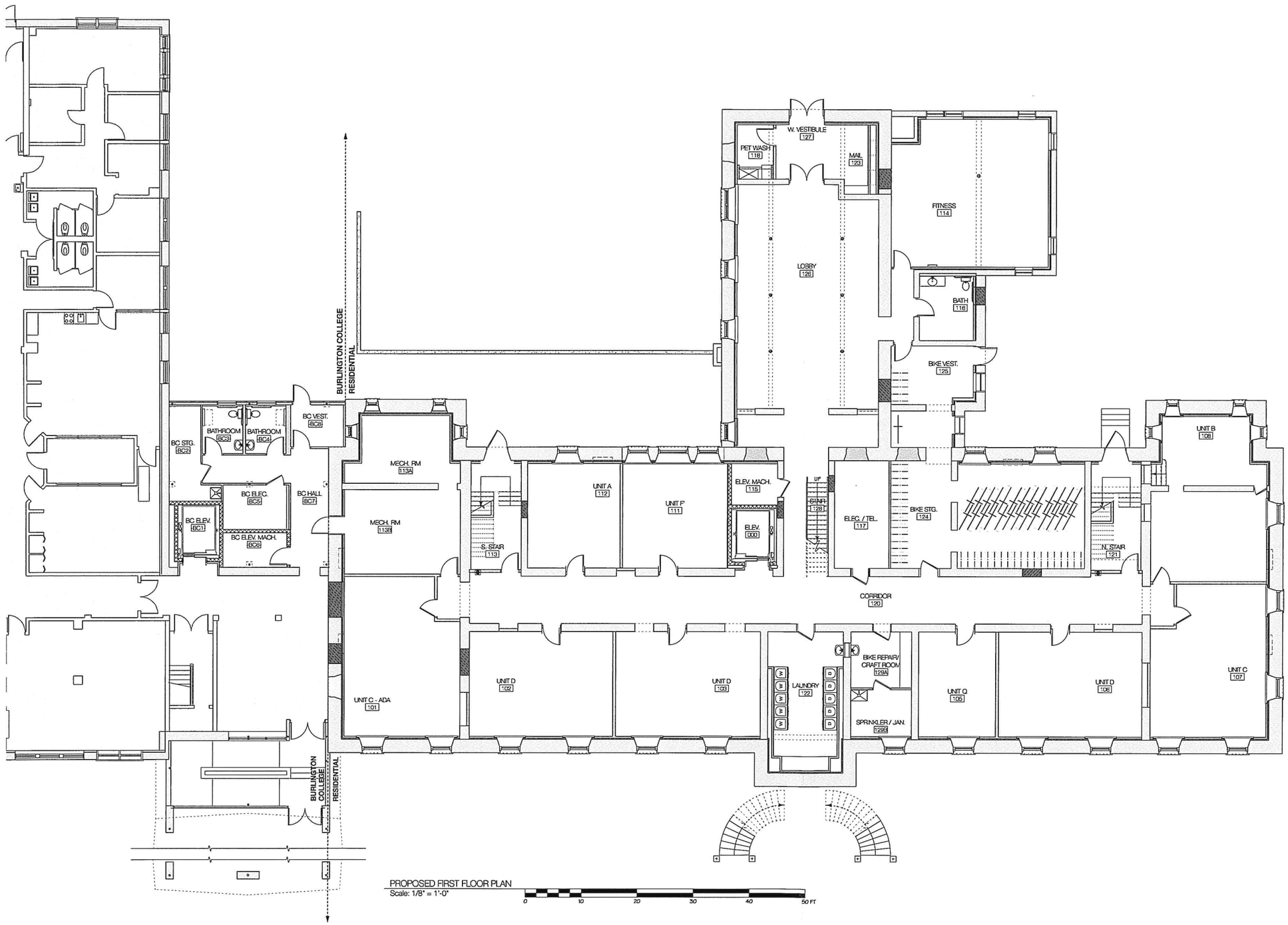
PLANNING & ZONING



PROPOSED FIRST FLOOR PLAN
Scale: 1/8" = 1'-0"

0 10 20 30 40 50 FT

375 NORTH AVE

BURLINGTON, VERMONT

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DUNCAN - WISNIEWSKI ARCHITECTURE
A Professional Corporation

ZONING APPLICATION

Duncan Wisniewski
ARCHITECTURE
255 SOUTH CHAMPLAIN STREET
BURLINGTON, VERMONT 05401
T: 802.864.6693

DATE: 12.18.15

A1.1

struktur

47 Maple Street Suite 304
Burlington, Vermont 05401
802.881.9836 802.922.2632

Richardson Apartments
435-441 Shelburne Street
Burlington, Vermont
December 9, 2015

Project Narrative

This project is located at 435-441 Shelburne Street on the corner of Shelburne Street and Lyman Avenue. We are seeking to convert an existing 12 Bedroom Rooming House and 2-Person Duplex, to a 10-unit Multi-Family Residential Apartment Building.

The proposed project is designed to be entirely contained within the existing building footprint, and includes interior fit-up, and replacement of exterior siding, windows, and roofing. The site density allows for a base of 8.6 units and an additional 2 units (20% inclusionary housing increase), totaling 10 units. The project is in the schematic design phase and currently includes (1) three bedroom unit, (7) one bedroom units, (1) Studio Unit, and (1)existing two bedroom basement apartment which is excluded from the scope of this project, but included in the overall density and parking calculations. Two first floor units will be designed to be accessible and inclusionary.

The existing overall lot acreage is .43, which includes the corner lot on Shelburne and Lyman Avenues (.34 acres), plus the right of way (.09) acres running behind the property from Lyman to Ferguson Avenues. The lots will be merged as part of this project. Per the survey, the existing combined lot coverage is +/- 52%. The allowable coverage based on the combined lots (with the inclusionary housing bonus) is 58% (48% +10% accessory).

The existing site is walkable to downtown Burlington and is located less than ¼ mile from two grocery stores and many other amenities including a pharmacy, restaurants, clothing and homegood stores. It is on CCTA #6 Shelburne Road and #46 116 Commuter bus lines with a stop directly in front of the property. It is less than one mile from the closest Carshare parking, and about one mile from the Burlington Bike path. Also, 8 of the 10 proposed units are either one bedroom or studio units. As such, we are seeking a parking waiver to allow for 12 parking spaces in place of the required 20 spaces. This allows for (1) parking space per one bedroom and studio unit, and (2) parking spaces per two and three bedroom units. A parking waiver plan will be included in our final Planning and Zoning submission. The plan will be focused on safe pedestrian use, efficient layout for traffic flow, maximizing functional greenspace, encouraging alternate modes of transportation, minimizing environmental impact through the use of permeable pavement.

It is our objective to develop this project in a manner that supports the City of Burlington Comprehensive Development Ordinance by promoting public health and safety, good urban and civic design, and energy efficiency. Furthermore, we are committed to providing residents access to a healthy living environment through maximum access to daylight, views, useable outdoor green space, and amenities that encourage a healthy lifestyle such as covered bike storage, and connection to a walkable community.

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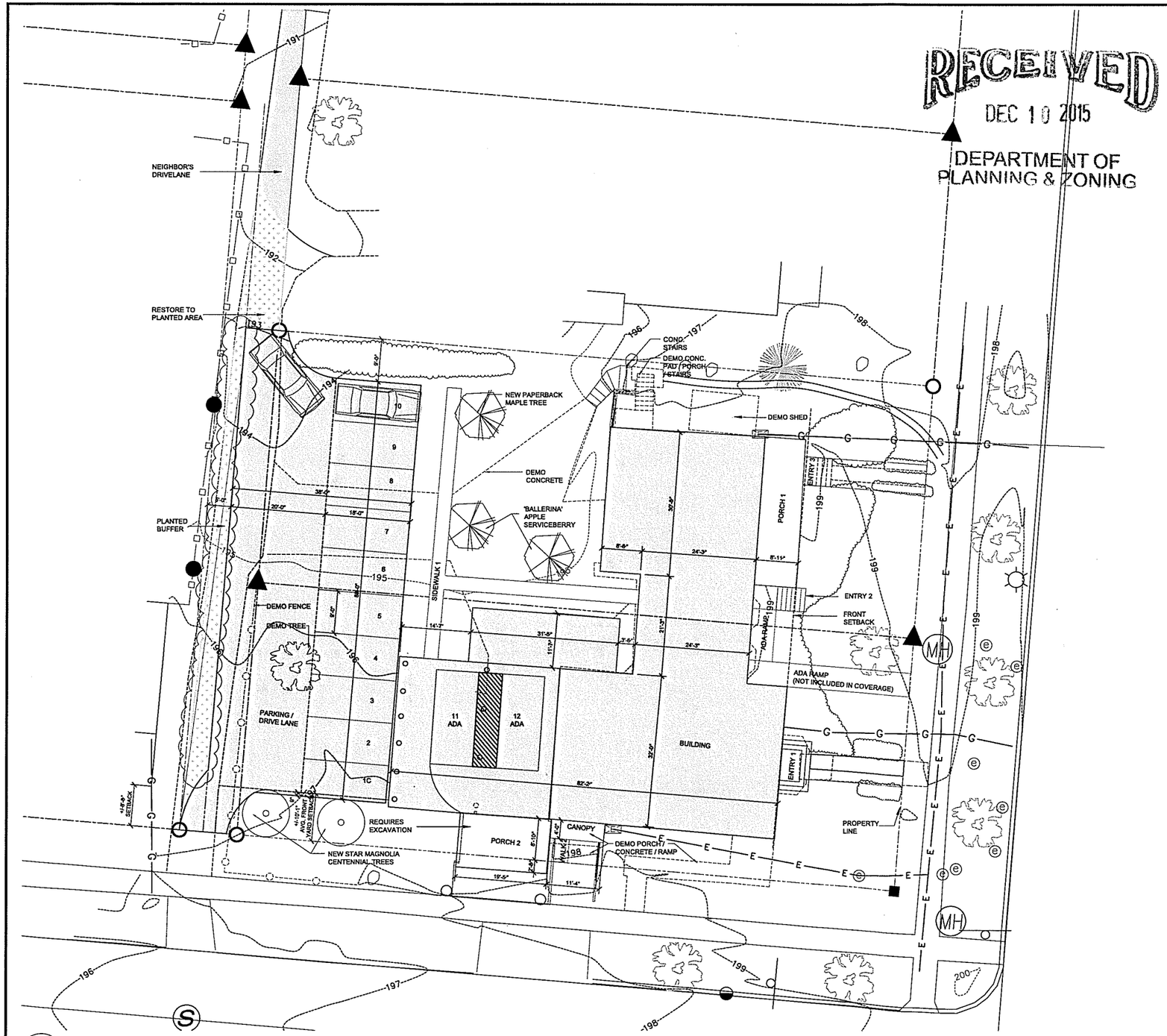
DEC 10 2015
DEPARTMENT OF
PLANNING & ZONING



1 SITE PLAN
3/32"=1'-0"

RECEIVED
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DEPARTMENT OF PLANNING & ZONING

PROPOSED SITE PLAN

EXISTING LOT AREA (PER SURVEY DRAWING):	18,882
EXISTING LOT COVERAGE (PER SURVEY DRAWING):	51.5%

LOT AREA:	18,882 SF (.43 ACRES)
DENSITY:	20 UNITS/ACRE + 20% INCLUSIONARY ADDITIONAL ALLOWANCE = 24 UNITS/ACRE = 10.32 UNITS
LOT COVERAGE:	40 % + 20% INCLUSIONARY ADDITIONAL ALLOWANCE = 48% MAXIMUM LOT COVERAGE+ 10% RESIDENTIAL ACCESSORY

☐ PRIMARY RESIDENTIAL FEATURES (48%):

BUILDING:	4540	
PARKING/DRIVE LANE:	3593	
NEIGHBOR'S DRIVE:	994	
TOTAL:	9127	48.3%

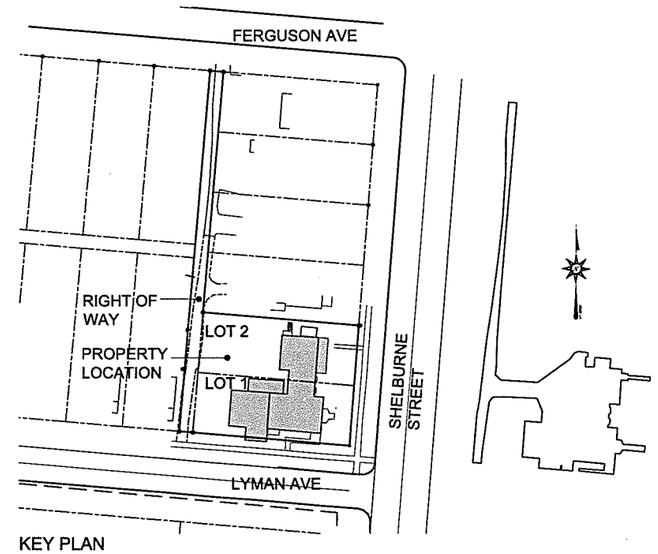
☐ ACCESSORY RESIDENTIAL FEATURES (10% BONUS):

CONC STAIRS	38	
PORCH 1	276	
PORCH 2	223	
CANOPY	45	
ENTRY 1	177	
ENTRY 2	30	
ENTRY 3	160	
SIDEWALK 1	298	
WALK 2	15	
TOTAL:	1262	6.7%

TOTAL COVERAGE = 55%

PROJECT LOCATION

SITE LOCATION PLAN
NTS



KEY PLAN
1" = 60'-0"

STRUKTUR, PLLC
47 MAPLE STREET, SUITE 304
BURLINGTON, VT 05401
802.922.2632
WWW.STRUKTURVT.COM

RICHARDSON MULTIFAMILY HOUSING

BURLINGTON VERMONT

PROPOSED SITE PLAN

DATE: 12.10.15
SCALE: 3/32" = 1'-0"

S-1

Department of Planning and Zoning
149 Church Street
Burlington, VT 05401
Telephone:(802) 865-7188
(802) 865-7195 (FAX)
(802) 865-7142 (TTY)

David White, AICP, Director
Meagan Tuttle, AICP, Comprehensive Planner
Jay Appleton, GIS Manager
Scott Gustin, AICP, Principal Planner
Mary O'Neil, AICP, Principal Planner
Anita Wade, Zoning Clerk
Elsie Tillotson, Department Secretary

TO: Development Review Board
FROM: Scott Gustin
DATE: February 2, 2016
RE: 16-0007CA; 351 North Avenue

==========

Note: These are staff comments only; decisions on projects are made by the Development Review Board, which may approve, deny, table or modify any project. THE APPLICANT OR REPRESENTATIVE MUST ATTEND THE MEETING.

Zone: WRM Ward: 4N

Owner/Applicant: EF Farrell, LLC

Request: Amendment to 63-unit apartment approval to include removal of 1st floor assembly space, add 2 living units and 2 parking spaces, relocate/redesign west entrance with associated landscape changes. Also add small fenced in dog park, grilling patio, utility pad, and indoor bike parking spaces. Retain porte cochere.

Applicable Regulations:
Article 4 (Maps & Districts), Article 5 (Citywide General Regulations), Article 6 (Development Criteria & Guidelines), Article 8 (Parking), Article 9 (Inclusionary and Replacement Housing)

Background Information:
The applicant is seeking approval to amend an existing permit for the conversion of the former orphanage building (AKA St. Joseph's/ Providence Orphan Asylum) at 351 North Avenue into 63 units of multi-family housing and relocated college space with related site work for parking, access, and landscaping. The requested amendment, while touching on diverse items, results in little impact to the overall scope of development. The overall unit count will increase by 2 to 65. Beyond that, changes relate to site features and retention of the existing porte cochere.

Previous zoning actions for this property are noted below.

- Zoning Permit 16-007CA/MA; Approval to convert building into 63 apartments and related site improvements. Approved September 2015.
- Zoning Permit 15-0702LL; Lot line adjustment with 329 North Avenue. Approved December 2014. [Plat recorded 1/16/2015; Plat file 509C.]
- Zoning Permit 14-1286CA; Installation of CCTA bus shelter on Burlington College property. Approved June 2014.
- Zoning Permit 12-0706SN; replace existing non-conforming freestanding sign with new freestanding sign for Burlington College – Main Campus. Approved March, 2012.
- Zoning Permit 12-0121CA; Install rooftop air handler, five ac units, bike racks, and remove walls from garage. Approved August 11, 2011.

- Zoning Permit 11-0282CU; convert existing institutional office use and group home use to post-secondary school. No site or exterior building changes proposed. Approved November 2010.
- Zoning Permit 09-526CA; Demolish single car garage. Approved February 2009.
- Non-applicability of zoning permit requirements; continued use of existing group home. June 1998.
- Zoning Permit 92-096 / COA 092-016; Removal of existing wooden cross with installation of fiberglass statuary of St. Mary on top of Diocese building. Overall height to be 104' with exterior illumination to surround statue. Approved September 1991.
- Notice of selective landscape removal on west. No change in grade of site or drainage of runoff water. December 1991.
- Zoning Permit 79-352; install septic tank and seepage bed. July 1979.
- Zoning Permit 77-03; renovation of existing structure "St. Josephs Child Center" into office space and three apartments for Bishop and two priests. Approved January 1977.
- Zoning Permit 77-628; Convert St. Joseph's Child Center into office building, three apartments and three guests' rooms. Remove some windows and brick up openings. Install new windows. Erect 28'6" x 30' addition and 32' x 66' addition. December 1976.

Recommendation: <u>Certificate of Appropriateness approval</u> as per, and subject to, the following findings and conditions:

I. Findings

Article 4: Maps & Districts
Sec. 4.4.5, Residential Districts:
(a) Purpose
(4) Waterfront Residential Medium Density (WRM)
The subject property is located in the WRM zone. This zone is primarily intended for medium density residential development in the form of single-detached dwellings and attached multi-family apartment buildings. Relative to the RM zone, this waterfront zone entails greater consideration of views from the lake and stormwater runoff. The proposed development entails relatively little site work and will be largely imperceptible as viewed from the lake. Most stormwater runoff will be retained and infiltrated onsite. The project as amended remains consistent with this criterion. **(Affirmative finding)**

(b) Dimensional Standards & Density
The 6 acre property at 351 North Avenue has well over the minimum required 30' road frontage. The increase to 65 residential units remains well under the 25-unit/acre density limit (with inclusionary units). Every 1,500 sf of remaining college space accounts for 1 dwelling unit for density calculations. The college will continue to occupy 29,000 sf and will, therefore, amount to the equivalent of 19 dwelling units. The total density remains below the maximum permissible. Per Sec. 5.2.4, *Buildable Area Calculation*, unit density must be based on "buildable area." Areas of 30% or greater slope are eliminated, and areas of 15% - 30% slope may be calculated at up to

50% of density. Buildable area was calculated and resolved in the prior project approval. There are 4.97 buildable acres. Up to 124 dwelling units could be built at 25 units/acre.

The amended site plan does not note any change to the approved lot coverage of 40.96%. Although site changes are minor, they do appear to have some effect on total lot coverage. Indication of revised lot coverage is needed.

Building setbacks will remain unchanged and are acceptable.

Building height will remain unchanged. **(Affirmative finding as conditioned)**

(c) Permitted & Conditional Uses
The proposed multi-family housing is a permitted use in the WRM zone. The remaining college use is conditional. **(Affirmative finding)**

(d) District Specific Regulations
1. Setbacks
No setback encroachments are sought.

2. Height
No height exceptions are sought.

3. Lot Coverage
No lot coverage exceptions are sought.

4. Accessory Residential Structures and Uses
No new accessory residential structures or uses are included in this proposal.

5. Residential Density
All of the proposed residential units are subject to an occupancy limit of 4 unrelated adults or a family as defined in the CDO. **(Affirmative finding)**

6. Uses
Not applicable.

7. Residential Development Bonuses
No development bonuses are sought in this proposal; however, the required inclusionary housing affords greater development intensity under this provision. Specifically, allowed residential density increases to 25 dwelling units/acre, and lot coverage increases to 72%. As noted previously, density and lot coverage remain below the maximum allowable. **(Affirmative finding)**

Article 5: Citywide General Regulations
Sec. 5.2.3, Lot Coverage Requirements
See Sec. 4.4.5 (b) above.

Sec. 5.2.4, Buildable Area Calculation

Buildable area was calculated as part of the prior project approval. Within the 6-acre property, there are 4.97 buildable acres. As proposed, density and lot coverage are acceptable within the buildable area. **(Affirmative finding)**

Sec. 5.2.5, Setbacks
See Sec. 4.4.5 (b) above.

Sec. 5.2.6, Building Height Limits
See Sec. 4.4.5 (b) above.

Sec. 5.2.7, Density and Intensity of Development Calculations
See Sec. 4.5.5 (b) above.

Sec. 5.4.8, Historic Buildings and Sites
(a) Applicability:
These regulations shall apply to all buildings and sites in the city that are listed, or eligible for listing, on the State or National Register of Historic Places.
St. Joseph's/Providence Orphan Asylum is listed on the Vermont State Register of Historic Places. Therefore, the standards of Sec. 5.4.8 apply. Building alterations were evaluated as part of the prior approval. Exterior changes associated with this amendment are limited to retention of the existing porte cochere. In effect, this change is a lack of change to the existing building conditions. No further review under Sec. 5.4.8 is warranted by this amendment. **(Affirmative finding)**

Sec. 5.5.1, Nuisance Regulations
Nothing in the proposal appears to constitute a nuisance under this criterion. **(Affirmative finding)**

Sec. 5.5.2, Outdoor Lighting
A revised outdoor lighting plan has been provided. Different fixtures are proposed, and they are situated differently within the site. The photometric plan depicts acceptable lighting levels except for those along the walkways. The walkways exceed the 0.5 footcandle average cited in this section. Exceeding this standard may be acceptable if the applicant can demonstrate compliance with a context-appropriate IESNA standard. The plans; however, contain no such reference. Cutsheets for the revised fixtures have been provided and depict acceptable fixtures. **(Affirmative finding as conditioned)**

Sec. 5.5.3, Stormwater and Erosion Control
The amended project plans do not affect stormwater management. **(Affirmative finding)**

Article 6: Development Review Standards:
Sec. 6.1.2 Review Standards
Part 1: Land Division Design Standards
Not applicable.

Part 2: Site Plan Design Standards
Sec. 6.2.2 Review Standards
Site changes were reviewed and approved as part of the prior zoning permit. The amendment entails relatively little in the way of site changes. The new parking lot to the north has been

revised to include paved handicap accessible parking spaces, a small landscaping island, and a dumpster enclosure. Landscaping associated with this new parking lot has been slightly revised, and the ornamental fence paralleling North Avenue has been retained. The large courtyard behind the building has been deleted and replaced with a smaller outdoor gathering space. The front walkway has been somewhat revised, and the landscaping plan has generally been reworked. There appear to be additional border plantings along the building's North Avenue façade, new trees for screening of the southern parking lot, and other miscellaneous revisions. Changes to the site are acceptable. **(Affirmative finding)**

Part 3: Architectural Design Standards
Sec. 6.3.2 Review Standards
The proposed amendment makes no apparent changes to the building exterior from the prior approval with one exception: The existing porte cochere will be retained. The elevation drawings also depict the copper roof recently approved under separate zoning permit. **(Affirmative finding)**

Article 8: Parking
Sec. 8.1.8, Minimum Off-Street Parking Requirements
The subject property is located in the neighborhood parking district. As a result, each of the 65 dwelling units requires 2 parking spaces – a total of 130 parking spaces in this case. As proposed, 71 parking spaces will be provided for the residences. A 57-space parking waiver (with conditions) was included in the prior approval. As amended, the waiver is for 59 spaces.

The college, when it was approved in 2010, received a 73-space (45%) parking waiver. As proposed, the college would be reduced to just 29,000 sf. That area would require a total of 58 spaces (2 per 1,000 sf). A continuation of the 45% parking waiver would result in 26 required parking spaces. The existing 51-space parking lot south of the building will continue to serve the college. **(Affirmative finding)**

Sec. 8.1.15, Waivers from Parking Requirements/Parking Management Plans
Conditions related to the previously approved parking waiver continue to apply to the now 59-space parking waiver. The Development Review Board conditioned approval of the parking waiver on the applicant approaching CarShare VT in a good faith effort to see if a CarShare vehicle could be placed onsite. The Board also required additional outdoor bike racks as noted in Sec. 8.2.5 below (addressed as part of this amendment) and required that the applicant report to the Board 1 year after issuance of a certificate of occupancy the number of tenants overall in the building, the number of Burlington College student tenants, and the adequacy of onsite bike and vehicle parking relative to actual parking demand. **(Affirmative finding as conditioned)**

Sec. 8.2.5, Bicycle Parking Requirements
Onsite bike lockers, bike parking, and a bike wash for residents will be provided. The two additional dwelling units result in a slight change to required bike parking. The apartments will require at least 16 long term bike parking spaces (such as lockers) and 7 short term spaces. The Board conditioned the prior approval upon installation of 10 conveniently located exterior bike parking spaces for the college and 10 bike parking spaces for the residences for a total of 20 exterior bike parking spaces. As amended, the project exceeds these targets. There will be 65 indoor bike parking spaces and 48 outdoor spaces (28 for residents and 20 for the college). **(Affirmative finding)**

Article 9: Inclusionary and Replacement Housing
Sec. 9.1.5, Applicability
The two additional dwelling units do not affect the required number of inclusionary housing units. Of the 65 dwelling units, 16 must be inclusionary (25% of 65). Note that inclusionary housing units must be included onsite – the offsite option is not allowed within any waterfront zone. Final approval from the manager of housing trust fund is required. **(Affirmative finding)**

II. Conditions of Approval

1. This approval does not supersede the prior approval granted September 1, 2015. It is simply an amendment thereto. All conditions associated with the September 1, 2015 zoning permit 16-0007CA/MA remain in effect.
2. **Prior to release of the zoning permit**, revised plans shall be submitted subject to staff review and approval. Revised plans shall depict:
    a. Proposed lot coverage; and,
    b. Walkway lighting levels of 0.5 fc average (or less), or reference to an applicable IESNA outdoor lighting standard.
3. This approval revises the parking waiver to 59 spaces and incorporates the conditions of approval of the original 57-space parking waiver.
4. Standard Conditions 1-14.

Department of Planning and Zoning
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(802) 865-7195 (FAX)
(802) 865-7142 (TTY)

David White, AICP, Director
Meagan Tuttle, AICP, Comprehensive Planner
Jay Appleton, GIS Manager
Scott Gustin, AICP, Principal Planner
Mary O'Neil, AICP, Principal Planner
Anita Wade, Zoning Clerk
Elsie Tillotson, Department Secretary

TO: Development Review Board
FROM: Scott Gustin
DATE: February 2, 2016
RE: 16-0711SP; 435-441 Shelburne Street

==========

Note: These are staff comments only; decisions on projects are made by the Development Review Board, which may approve, deny, table or modify any project. THE APPLICANT OR REPRESENTATIVE MUST ATTEND THE MEETING.

Zone: RM Ward: 5S

Owner/Applicant: Mitchel Richardson

Request: Sketch plan review to convert existing rooming house/duplex to a 10-unit multifamily apartment building and related site improvements.

Applicable Regulations:
Article 4 (Maps & Districts), Article 5 (Citywide General Regulations), Article 6 (Development Criteria & Guidelines), Article 8 (Parking), and Article 9 (Inclusionary and Replacement Housing)

Background Information:
The applicant is requesting sketch plan review for the proposed conversion of a duplex/boarding house to a 10-unit apartment building. Associated site work, primarily related to parking and circulation, is also included in the proposal. While the number of proposed units exceeds the 5-unit threshold for major impact review, the project qualifies for an exemption from major impact because the conversion will take place within the existing building. Inclusionary housing will be required.

Previous zoning actions for this property are noted below.

- 6/10/15, Non-applicability of zoning permit requirement issued for partial reconstruction of structure in-kind
- 4/29/15, Non-applicability of zoning permit requirement issued for in-kind siding replacement
- 11/30/07, Approval to modify onsite parking
- 8/7/03, Approval for stair and window replacement
- 8/12/82, Approval to establish convalescent home
- 7/22/82, Denial of requested convalescent home
- 7/16/82, Approval to demolish catwalk between structures
- 10/6/81, Denial to connect two buildings on adjacent lots
- 11/11/80, Approval to install garage doors
- 11/20/73, Denial to allow canoe rental business as home occupation
- 9/5/72, Approval to a 20-child daycare center

I. Findings

Article 4: Maps & Districts

Sec. 4.4.5, Residential Districts:

(a) Purpose

(3) Residential Medium Density (RM)

The subject property is located in the RM zone. This zone is primarily intended for medium density residential development in the form of single-detached dwellings and attached multi-family apartment buildings. The proposed conversion to a 10-unit apartment building is consistent with this intent.

(b) Dimensional Standards & Density

Two parcels are to be combined resulting in a 0.43 acre parcel. The proposed 10 dwelling units are within the maximum permissible 25 units/acre (with inclusionary units).

As proposed, lot coverage will total 55%. Of that total, 48.3% will be standard lot coverage, and an additional 6.7% will be "accessory" lot coverage consisting of walkways, open porches, and the like. With inclusionary units, permissible lot coverage in the RM zone is 48%. Per Sec. 4.4.5 (d) 3 below, an additional 10% may be allowed for accessory features. The 48.3% standard lot coverage is slightly above the maximum permissible. The site plan notes 51.5% existing coverage, but there is nothing in the zoning record to support this nonconformity. The applicant either needs to demonstrate legitimate nonconformity or simply reduce the standard coverage to 48%.

Except for the removal of some small accessory components, building setbacks will remain unchanged. The proposed access drive and parking area will comply with the minimum required 5' side yard setback. Confirmation is needed as to what the front yard setback is and whether the front of the proposed parking area is situated behind that line. As a corner lot, there is no rear yard.

Building height will remain unchanged.

(c) Permitted & Conditional Uses

The proposed multi-family housing is a permitted use in the RM zone.

(d) District Specific Regulations

1. Setbacks

No setback encroachments are sought.

2. Height

No height exceptions are sought.

3. Lot Coverage

As noted above, 6.7% of the total lot coverage consists of accessory features like open porches and walkways. This 6.7% is within the 10% afforded to such features.

4. Accessory Residential Structures and Uses

No new accessory residential structures or uses are included in this proposal.

5. Residential Density
All of the proposed residential units are subject an occupancy limit of 4 unrelated adults or a family as defined in the CDO.

6. Uses
Not applicable.

7. Residential Development Bonuses
None are sought beyond by-right bonuses associated with required inclusionary housing.

Article 5: Citywide General Regulations
Sec. 5.2.3, Lot Coverage Requirements
See Sec. 4.4.5 (b) above.

Sec. 5.2.4, Buildable Area Calculation
Not applicable.

Sec. 5.2.5, Setbacks
See Sec. 4.4.5 (b) above.

Sec. 5.2.6, Building Height Limits
See Sec. 4.4.5 (b) above.

Sec. 5.2.7, Density and Intensity of Development Calculations
See Sec. 4.5.5 (b) above.

Sec. 5.5.1, Nuisance Regulations
Nothing in the proposal appears to constitute a nuisance under this criterion.

Sec. 5.5.2, Outdoor Lighting
No outdoor lighting information has been provided. If any new outdoor lighting is proposed, fixture locations and cutsheets must be provided. If anything beyond doorways are to be illuminated, a photometric plan depicting average and maximum illumination levels and uniformity ratios will be required.

Sec. 5.5.3, Stormwater and Erosion Control
No stormwater management information has been provided. While the net change in lot coverage is slight, the redevelopment of this property warrants the inclusion of stormwater improvements. The applicant is advised to work with the city's stormwater program prior to submission of a zoning permit application for the development.

Article 6: Development Review Standards:
Sec. 6.1.2 Review Standards
Part 1: Land Division Design Standards
Not applicable.

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

(a) Protection of important natural features
The site contains no significant natural areas as identified in the Open Space Protection Plan. It appears that all but one of the existing trees will be retained.

(b) Topographical alterations
The property is essentially flat and will remain so. Some excavation will be required to access 2 new garage parking spaces along the building's Lyman Avenue frontage. Grading details will be needed at the time of zoning permit application.

(c) Protection of important public views
There are no significant public views from or through the subject property.

(d) Protection of important cultural resources
The building is not included on an historic register, nor is it eligible for inclusion. The proposed conversion to multi-family housing will have no adverse impact on historic or cultural resources.

(e) Supporting the use of alternative energy
Nothing within the sketch plans contemplates utilization of alternative energy resources. Rooftop solar may be cost-effective if installed along the building's southern exposure.

(f) Brownfield sites
The site is not included on the Vermont DEC Hazardous Site List.

(g) Provide for nature's events
Stormwater management is not addressed in the sketch plans. The applicants are advised to work with the Burlington Stormwater Program to work out proposed stormwater improvements prior to permit application.

(h) Building location and orientation
Existing building location and orientation will not change. The L-shaped building is set to the street corner and has entries facing Shelburne Street and Lyman Avenue.

(i) Vehicular access
Vehicular access from Lyman Avenue will be retained, but parking will be reconfigured and formalized as noted in criterion (*l*) below.

(j) Pedestrian access
Walkways will connect the front entries to the public sidewalks. New walkways behind the building will provide access into the building from the parking area. There is a significant gap between the walkways and parking area that should be eliminated to improve connectivity. The layout as presently proposed would quickly lead to trampling of the green space between the parking lot and associated walkways.

(k) Accessibility for the handicapped
ADA details are not noted in the sketch plans. There is only mention that two of the apartments will be accessible. It is the applicant's responsibility to comply with all applicable ADA requirements.

(l) Parking and circulation
The reconfigured parking area will be located behind the building as perceived from Shelburne Street and to the side of the building as perceived from Lyman Avenue. No parking lot shading analysis is included in the sketch plans. This criterion establishes a target of 30% shading of the parking area with new shade trees. At least 1 shade tree for every 5 parking spaces is required. Minimum caliper size at the time of planting is 2.5" – 3.5" and a mature canopy diameter of 35' is expected. New shade trees would be most effective planted along the southern and western parking lot boundaries. Such details will be required with the permit application.

(m) Landscaping and fences
Some general landscaping information has been provided in the sketch plans. It appears that much of the existing landscaping around the building will be retained. A couple of new trees will be planted immediately south of the parking lot. Some additional trees will likely be needed to achieve the targeted shading as noted above. New shrubs or similar plantings for enhanced screening of the parking area along Lyman Avenue are recommended. A detailed landscaping plan will be required as part of the permit application.

(n) Public plazas and open space
No public plazas or open space are included in this proposal.

(o) Outdoor lighting
See Sec. 5.5.2.

(p) Integrate infrastructure into the design
No new outdoor mechanical equipment is apparent in the sketch plans. If any is proposed, it must be depicted and screened. Similarly, no dumpster is depicted on the sketch plans. With 10 apartments, one may be needed. Provision for trash and recycling must be included in the zoning permit application plans. Any new utility lines must be buried.

Part 3: Architectural Design Standards
Sec. 6.3.2 Review Standards
No architectural plans are included in the sketch plan submission. The applicant is advised to contact the Vermont Department of Health relative to lead and asbestos abatement associated with interior building renovations.

Article 8: Parking
Sec. 8.1.8, Minimum Off-Street Parking Requirements
The subject property is located in the neighborhood parking district. As a result, each of the 10 dwelling units requires 2 parking spaces – a total of 20 parking spaces in this case. As proposed, 12 parking spaces will be provided for the residences. An 8-space parking waiver is sought. See Sec. 8.1.15 below.

Sec. 8.1.15, Waivers from Parking Requirements/Parking Management Plans
The applicant is seeking a 40% parking waiver for the residences. This percentage is within the 50% permissible limit. A parking management plan will be required in order to support the waiver.

Preliminary details note that the property is within a quarter mile of shopping and services and is located along CCTA bus routes. The sketch plans also note that at least 1 parking space per bedroom will be provided.

Item (d) of this criterion requires that parking management plans identify strategies that the applicant will use to reduce or manage the demand for parking into the future including things such as implementing a car-share program, using shuttles, and/or providing public transit subscriptions. Upon permit application, the associated parking management plan must make a commitment to these, or similar, strategies.

Sec. 8.2.5, Bicycle Parking Requirements
No details relative to bike parking have been provided. The 10 apartments will require at least 2 long term bike parking spaces (such as lockers) and 1 short term space.

Article 9: Inclusionary and Replacement Housing
Sec. 9.1.5, Applicability
As the proposed development includes more than 5 new dwelling units, it is subject to the inclusionary housing provisions of this Article. Fifteen percent of the total unit count must be inclusionary (15% of 10 is 2 dwelling units) in this zone. The sketch plans note that two of the units will be inclusionary. The applicant is advised to work with the manager of the city's Housing Trust Fund to iron out details prior to zoning permit application.

II. Conditions of Approval
None for sketch plan review.

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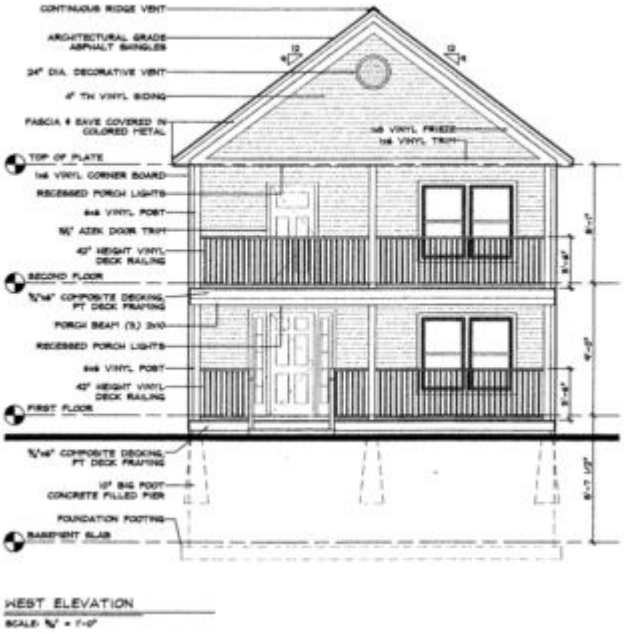
Elsie Tillotson, Department Secretary
Anita Wade, Zoning Clerk

MEMORANDUM

To: Development Review Board
From: Mary O'Neil, AICP, Principal Planner
Date: February 2, 2016
RE: ZP16-0762PD, 16 Rose Street

Note: These are staff comments only. Decisions on projects are made by the Development Review Board, which may approve, deny, table or modify any project. THE APPLICANT OR REPRESENTATIVE <u>MUST</u> ATTEND THE MEETING.



File: ZP16-0762PD
Location: 16 Rose Street
Zone: RM **Ward**: 3C
Date application accepted: January 6, 2016
Applicant/ Owner: J&S LLC (Bill Bissonette)
Parking District: Shared Use
Request: Construct a duplex on a lot with an existing single family home; remove accessory structure.

Background:

- **Non-Applicability of Zoning Permit Requirements 09-374NA;** remove 3 windows and replace with new. Burlington Lead Program. October 2008.

Overview: Construction of a new duplex on a parcel with an existing single family residence; expansion of parking area, demolition of shed.

Applicable Regulations:
Article 3 (Applications, Permit and Project Reviews), Article 4 (Zoning Maps and Districts), Article 5 (Citywide General Regulations), Article 6 (Development Review Standards), Article 8 (Parking), Article 9 (Inclusionary and Replacement Housing), and Article 11 (Planned Unit Development)

The programs and services of the City of Burlington are accessible to people with disabilities. For accessibility information call 865-7188 (for TTY users 865-7142).

Recommendation: As the plan is deficient in parking to meet the parking requirement of the Comprehensive Development Ordinance; and no parking management plan or parking waiver request has been provided, **denial** based on incompleteness of the application is recommended.

<u>Article 3: Applications and Reviews</u>

Part 3: Impact Fees
Article 3.3.2 Applicability
Any new development or additions to existing buildings which result in new dwelling units or in new nonresidential buildings square footage are subject to impact fees as is any change of use which results in an added impact according to Section 3.3.4.
The applicant will be required to provide the gross new area to staff for a calculation of appropriate Impact Fees. **Affirmative finding if conditioned.**

Section 3.3.7 Time and Place of Payment
(a) New Buildings: Impact fees must be paid at least seven (7) days prior to occupancy of a new building or any portion thereof.
As noted. **Affirmative finding if conditioned.**

Part 4: Site Plan and Design Review
Section 3.4.2 Applicability
(b) Design Review
6. Any development subject to the provisions of Article 11 – Planned Development.
See Articles 4, 5, 6, and 11.

<u>Article 4: Maps & Districts</u>
Section 4.4.5 Residential Districts
(a) Purpose
3. *The Residential Medium Density (RM) district is intended primarily for mediuum density residential development in the form of single family detached dwellings and attached multi-family apartments.*
The proposal conforms to the purpose of the zoning district in providing both a single family and a multi-unit (duplex) on the parcel. **Affirmative finding.**
(b) Dimensional Standards and Density

Table 4.4.5-1 Minimum Lot Size and Frontage: RL, RL-W, RM and RM-W
Minimum lot frontage is 30' in the RM zoning district; 16 Rose Street has a frontage of 77.25'. There is no minimum lot size in RM. **Affirmative finding.**

Table 4.4.5-2 Base Residential Density
20 units / acre is the maximum number of dwelling units in the RM zoning district. For this proposal:
3 units (proposed) / 0.19 acres = 15.78, less than the 20 acres limitation. **Affirmative finding.**

Table 4.4.5-3 Dimensional Standards and Density

RM District	Max. Lot Coverage	Building setbacks	Max.

	40%	Ave. of 2 adjacent lots on both sides +/- 5'.	Side[3] Min: 10% of lot width, or average of 2 adjacent lots on both sides. Max 20'.	Rear Min: 25% lot depth, min. 20', max 75'	**Height** **35'**
Proposed development	43% proposed with bonus components		9'6" proposed on south. Averages have not been provided. Meets 10% of lot width of 77.25.'	Structure exceeds 25% lot depth, or 26.75'. Parking meets required 5' setback.	Approx. 24'.

Affirmative finding.

Section 4.4.5 (c) Permitted and Conditional Uses
Single detached dwellings and Duplex are permitted uses in the RM zoning district, per Appendix A. **Affirmative finding.**

Section 4.4.5 (d) District Specific Regulations

1. *Setbacks*
   - *A. Encroachment for Residential Driveways*
     None existing or proposed. Not applicable.
   - *B. Encroachment into the Waterfront Setback*
     Not applicable.
2. *Height*
   See Table 4.4.5 -3, above.
3. *Lot Coverage*
   - *A. Exceptions for Accessory Residential Features*

The site plan includes features allowable under this section within the 10% bonus provision: open porch and walkways. See Table 4.4.5-3, above. **Affirmative finding.**

4. *Accessory Residential Structures and Uses*

An existing accessory structure is proposed for removal; however it would be a useful amenity to provide storage for the proposed new units. Assumably its demolition is to facilitate coverage calculations. **Affirmative finding.**

5. *Residential density*
   - *A. Additional Unit to Multi-family*
     Not applicable.
   - *B. Additions to Existing Residential Structures*
     Not applicable.
   - *C. Residential occupancy limits*

In all residential districts, the occupancy of any dwelling unit is limited to members of a family as defined in Article 13.
This is a requirement and condition of permit approval. **Affirmative finding if conditioned.**

Subject to Conditional Use Approval by the DRB, a dwelling unit may be occupied by more than four unrelated adults if it contains at least twenty-five hundred square feet excluding its attic and basement pursuant to the following…
Each unit measures 962 sf, less than the 2500 threshold for consideration of additional unrelated adults above the limitation of 4. Therefore this does not apply.

6. Uses
This is not a neighborhood commercial use. Not applicable.

7. Residential Development Bonuses
No development bonuses are sought. Not applicable.

<u>Article 5: Citywide General Regulations</u>
Section 5.2.1 Existing Small Lots
Not applicable.

Section 5.2.2 Required Frontage or Access
16 Rose Street has 77.25' frontage on a public street. There is an existing driveway.
Affirmative finding.

Section 5.2.3 Lot Coverage Requirements
See Table 4.4.5-3, above.

Section 5.2.4 Buildable Area Calculation
The lot does not exceed the 2 acres threshold. Not applicable.

Section 5.2.5 Setbacks
See Table 4.4.5-3, above.

Section 5.2.6 Building Height Limits
See Table 4.4.5-3, above.

Section 5.2.7. Density and Intensity of Development Calculations
See Table 4.4.5-2, above.

Part 3: Non-Conformities
Section 5.3.5 Nonconforming Structures
The existing house at 16 Rose Street is non-conforming to (side yard) setback. No changes are proposed to that setback within the proposed planned unit development. Setbacks for the new structure will be required along the periphery of the project/parcel. **Affirmative finding.**

Section 5.4.8 Historic Buildings and Sites

16 Rose Street is not listed on the State or National Register of Historic Places. Its age and characteristics may contribute to its historic eligibility, however no such determination has been made. The development proposal does not propose any changes to the existing principal structure, but the demolition of an accessory building in the rear yard.

Not applicable.

Section 5.5.1 Nuisance Regulations
Nothing in the proposal appears to constitute a nuisance under this criterion. **Affirmative finding.**

Section 5.5.2 Outdoor Lighting
Recessed lighting is proposed for the front porch; a single solar powered light fixture is suggested for the rear door. As some type of roof canopy is recommended to protect residents from inclement weather, that fixture would not be effective. A residential style fixture, full cut off or recessed, is recommended for the rear fixture.
No lighting is proposed for the parking areas.
Affirmative finding if conditioned.

Section 5.5.3 Stormwater and Erosion Control
A stormwater management plan, and Erosion Prevention and Sediment Control Plan will be required for site development and must be approved in writing by the City Stormwater staff. Additionally, conditions will require compliance post construction with each approved plan prior to issuance of any Certificate of Occupancy. **Affirmative finding if conditioned.**

<u>Article 6: Development Review Standards</u>
Part 1, Land Division Design Standards
Not applicable.

Part 2, Site Plan Design Standards
Section 6.2.2 Review Standards
(a) Protection of important natural features
There are no identified significant natural features. **Affirmative finding.**

(b) Topographical alterations
The site is slightly "mounded"; a feature which presumably will be graded to afford the new residence similar position on-site as the existing building. **Affirmative finding.**

(c) Protection of important public views
There are no important public views from or through the property. **Affirmative finding.**

(d) Protection of important cultural resources
See Section 5.4.8 (b).

(e) Supporting the use of alternative energy
Nothing within the application includes the intent to utilize alternative energy resources, which would be encouraged.

(f) Brownfield sites
The propertiy is not listed on the Vermont DEC Hazardous Waste Site. **Affirmative finding.**

(g) Provide for nature's events
A Small Project Erosion and Sediment Control Plan, approved by the City Stormwater team will be required. **Affirmative finding if conditioned.**

No specific areas for snow storage have been identified on the site, and will be required. **Affirmative finding if conditioned.**

(h) Building location and orientation
The proposed new structure is oriented toward the street, with the roofline paralleling the ridge of the existing single family residence. In this manner, it maintains the existing development pattern and rhythm of structures along the street. The main entrance is visible and clearly discernable from the public street. The accessory structure is proposed to be removed. **Affirmative finding.**

(i) Vehicular access
There is an existing curb cut and driveway to the property, which is proposed to serve both residential structures. **Affirmative finding.**

(j) Pedestrian access
Front steps will provide access to a front porch entrance to the new structure. Rose Street has a public sidewalk on this side of the street, which is connected to the overall network of Burlington sidewalks.
A small set of rear steps will provide access to the newly configured parking area. **Affirmative finding.**

(k) Accessibility for the handicapped
Notes on plans suggest that accessibility standards, effective as of April 2012 will be implemented for entry door widths and interior door passage. No provision is included in the plan to make at-grade entrances for the new units, however any requirement for ADA access is under the review of the building inspector. **Affirmative finding if conditioned.**

(l) Parking and circulation
In the Shared Use Parking District, 2 parking spaces are required for each dwelling unit. For the three units proposed, 6 parking spaces are required. Only three are shown on the submitted site plan. The applicant must either provide an additional three spaces, or request a parking waiver with a Parking Management Plan. The submission is deficient of both. **Adverse finding.**

(m) Landscaping and fences
An existing fence is proposed to be removed to accommodate the new development.Other than 3 spirea plant proposed for the front of the new duplex no other landscaping is suggested in application materials. Spirea may not be the best choice of shrub, given its anticipated size and the close proximity of the public sidewalk. (Does the site plan reflect the actual property

boundaries, or are they assumed? The public ROW may invade the project area. This needs to be confirmed.) At the very least, landscaping or some barrier will be required to shield headlight trespass between the proposed parking area and neighboring residential properties. A revised landscaping plan designed to meet the necessary screening will be required prior to release of the permit. **Affirmative finding if conditioned.**

(n) Public plazas and open space
Planned Unit Developments require identified outdoor space for residents. This may include gardens, patios, terraces, play areas, basketball courts, picnic areas, shuffleboard courts, etc. The applicant is required to identify such place(s) as may be enjoyed by the future residents, per the standards of Article 11. None are present on the submitted plan. **Affirmative finding if conditioned.**

(o) Outdoor lighting
See Section 5.5.2.

(p) Integrate infrastructure into the design
Any new utilities need to be undergrounded. Meters, utility connections, HVAC or similar mechanical equipment should be coordinated with the design of the building, and grouped in a service court out of public view. Electric meters are illustrated on the southerly elevation; they will require some method of screening.
It is preferable to integrate trash and recycling operations within the building rather than as a stand-alone. The location of recycling facilities will need to be identified as well.
Any dumpster will be required to be enclosed on all four sides to prevent blowing trash; and must be screened from public view. The illustrated garbage toters are liable to blow over, as they will be fully exposed to the weather and may present a fire hazard placed close to the building. Having them located within an accessory structure, out of the public eye, is preferred.
Affirmative finding if conditioned.

Part 3, Architectural Design Standards
Section 6.3.2 Review Standards

(a)Relate development to its environment:

1. Massing, Height and Scale:

In low and medium density residential districts, the height and massing of existing residential buildings is the most important consideration when evaluating the compatibility of additions and infill development.

The existing single family home is a story and a half, with a two story addition on the rear. The parcel is bookended with two storied flat roofed buildings. Although the floor-to-ceiling height is clearly greater than the existing structure, the distance between the buildings and the presence of a two story flat roofed building on the south ease the transition.

The proposed new duplex will maintain an overall scale similar to that of its neighbors.

Buildings should maintain consistent massing and perceived building height at the street level, regardless of the overall bulk or height of the building. Buildings should maintain a relationship

to the human scale through the use of architectural elements, variations of proportions and materials, and surface articulations. Large expanses of undifferentiated building wall along the public street or sidewalk shall be avoided. The apparent mass and scale of buildings shall be broken into smaller parts by articulating separate volumes reflecting existing patterns in the streetscape, and should be proportioned to appear more vertical than horizontal in order to avoid monotonous repetition.

The new building is proposed to have an extended, pedimented temple style gable front, with a two story porch on the primary façade. Floors are clearly articulated with porch, door and window arrangement. The under-canopy porch design creates an interstitial area between public (street, sidewalk) and private (residential) space. The street front presence is a strong one; supporting porch posts should be thoughtfully chosen and arranged to be consistent with this character. **Affirmative finding.**

2. Roofs and Rooflines.

New buildings should incorporate predominant roof forms and pitches within the existing neighborhood and appropriate to the context. Large expanses of undifferentiated roof forms shall be avoided. This can be achieved by incorporating dormers or some variation in the roof form to lessen the impact of the massing against the sky. While flat roofs can be a reasonable architectural solution, pitched roof forms and architectural elements that enhance the city's skyline are strongly encouraged. Roof eaves, parapets, and cornices should be articulated as an architectural detail. Roof-top mechanicals shall be screened from view from the public street, and should be incorporated into and hidden within the roof structure whenever possible.

A gable front roof is proposed, uninterrupted from front to back. Gable roofs are common on residential buildings in this neighborhood. **Affirmative finding.**

Solar panels, light colored ballast or roof membranes, split roof clerestories, planted or "green" roof technologies (with a clearly articulated maintenance plan) and "gray water" collection are encouraged. Active rooftop uses are also encouraged to add to the visual complexity and activity of the city's skyline, and afford public access to otherwise unseen views of the city and surrounding landscape.

No solar panels, green roof or clerestory windows are proposed. Not applicable.

3. Building Openings

The front doors are clearly defined and readily identifiable from the public street, further articulated within the proposed two story porch.

People with physical challenges should be able to use the same entrance as everyone-else and shall be provided an "accessible route" to the building.

Neither front nor rear doors are accessible to those with mobility challenges. The building inspector has the authority over implementation of ADA standards. It is recommended that Vermont "visitability"standards apply to all new units.

Attention shall also be accorded to design features which provide protection from the affects of rain, snow, and ice at building entrances, and to provisions for snow and ice removal or storage.

The front porch will provide adequate shelter from imclement weather. The rear entry door should provide some canopy to do the same.

Snow storage will need to be identified on the site plan.

Window openings shall maintain consistent patterns and proportions appropriate to the use. The window pattern should add variety and interest to the architecture, and be proportioned to appear more vertical than horizontal. Where awnings over windows or doors are used, the lowest edge of the awning shall be at least eight (8) feet above any pedestrian way, and shall not encroach into the public right-of-way without an encroachment permit issued by the dept. of public works.

Consideration should be given toward function in the proposed window arrangement. The building, which will face west, will have no window openings in the living room / kitchen fronting the west (primary façade). Although the first floor unit has sidelights around the front door, some window openings would be welcome to present more natural light in the largest room of the dwelling. Currently the living rooms of both units have only a single window, facing north, which will predictably offer a minimum amount of natural daylight. Windows may be spaced across the primary façade to place one in the living room, and a single width window in the front bedroom, adding another on the southerly elevation. Such an alteration would provide great increase to the building's appearance as well as substantially increase the light and enjoyment of interior spaces. Larger windows are suggested for the north / rear bedrooms as well, to maximize natural daylight in those spaces.
Affirmative finding if conditioned.

(b) Protection of Important Architectural Resources:

See Section 5.4.8.

(c) Protection of Important Public Views:

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

(d) Provide an active and inviting street edge:

Although modest, the building form provides interest and familiarity with other residential buidlings within the old North End of Burlington. The porch will enhance both the residential experience and the appearance from the street. A thoughtful arrangement of the porch columns and window spacing will further enhance the traditional nature of the building design.

The front steps will immediately access the pedestrian way. The applicant shall confirm that the entrance steps and porch are fully outside the public right-of-way.

Affirmative finding if conditioned.

(e) Quality of materials:

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

content materials and building materials and products that are extracted and/or manufactured within the region are highly encouraged.

Proposed building materials are vinyl siding, Azek (PVC) trim, colored metal cornerboards, composite (PVC) decking, asphalt shingle roof, vinyl porch posts and rails. While vinyl is a common sheathing material in the neighborhood, it is not regarded as a highly durable building material, particularly in highly trafficked areas. Vinyl also is associated with negative environmental impacts due to the methods of its manufacture and the extensive period of time it would take to break down in landfills. For new construction, a more durable material like fiber cement board would be recommended for sheathing and trim. Asphalt shingle roofing is acceptable.

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

No changes are proposed to the existing structure at 16 Rose Street.

Affirmative finding if conditioned.

(f) Reduce energy utilization:

All new construction is required to meet the Guidelines for Energy Efficient Construction pursuant to the requirements of Article VI. Energy Conservation, Section 8 of the City of Burlington Code of Ordinances. **Affirmative finding if conditioned.**

New structures should take advantage of solar access where available, and shall undertake efforts to reduce the impacts of shadows cast on adjacent buildings where practicable, in order to provide opportunities for the use of active and passive solar utilization.

While there is no articulation for solar readiness within the building application, passive solar gain would be the result of more thoughtfully arranged and sized window openings.

Shadow cast from the proposed building is not anticipated to be problematic, as shade would fall across the house, driveway and yard on the same property. **Affirmative finding.**

(g)Make advertising features complementary to the site:

Not applicable.

(h) Integrate infrastructure into the building design:

See 6.2.2. (p).

(i) Make spaces secure and safe:

All requirements for building and life safety code as defined by the building inspector and fire marshal shall be implemented. **Affirmative finding if conditioned.**

<u>Article 8: Parking</u>

Table 8.1.8-1 Minimum Off Street Parking Requirements
Single family detached and duplex require 2 parking spaces per unit in the Shared Use parking district. For the proposed three units, 6 on site parking spaces are required. The new duplex is designed as two three-bedroom units for a total count of six new bedrooms.
Only three parking spaces are illustrated on the site plan. The applicant has *not* requested a parking waiver. The DRB may entertain a 50% parking waiver request toward the parking requirement, but no additional information supportive of a waiver (Parking Management Plan, per Section 8.1.15), has been provided.
As proposed, the proposal does not meet the parking requirement of the CDO.
If a parking waiver is extended, staff requests reporting back on the efficacy of the parking waiver in three years' time.
Adverse finding.

Section 8.2.5 Bicycle Parking Requirements
Table 8.2.5-1 defines the bicycle parking requirement a 1 long term bike parking space per 4 units and 1/10 units short term. Only three units are proposed on-site; however Section 8.2.5 informs "Where bicycle parking is required, the minimum number of bicycle parking spaces provided at each site shall be two (2) and the maximum shall be fifty (50), not including long term spaces." With three residential units, on-site bicycle parking is strongly recommended. Bicycle storage makes sense on-site as well. **Affirmative finding if conditioned.**

<u>Article 9: Inclusionary and Replacement Housing</u>
Section 9.1.5 Applicability (As amended by the City Council 8/10/2015.)
As the proposed development does not include more than 5 new dwelling units, it is not subject to the inclusionary housing provisions of this Article.

<u>Article 11: Planned Unit Development</u>
Section 11.1.3 General Requirements and Applicability (As adopted by City Council 8.10.2015.)
Any development involving multiple lots, tracts or parcels of land to be developed as a single entity, or seeking to place ***multiple structures an/or uses on a single lot where not otherwise permitted,*** *may be permitted as a PUD subject to the provisions of this Article.*
A Planned Unit Development may be permitted subject to minimum project size as follows in the following districts:
Table 11.1.3
RM – no minimum project size.

Section 11.1.4 Modification of Regulations
With the approval of the DRB after a public hearing, the following modifications the requirements of the underlying zoning may be altered within a planned unit development:

- *Density, frontage, lot coverage and setback requirements may be met as calculated across the entire project rather than on an individual lot-by-lot basis.*

The project, as proposed, meets density limitations.

- *Required setbacks may apply only to the periphery of the project rather than on an individual lot-by-lot basis;*

The proposed new structure exceeds the 10% side yard setback.

- *More than one principal use and more than one primcipal structure may be permitted on a single lot, and*
- *Buildings may be of varied types including single detached, attached, duplex or apartment construction.*
  The existing building is a single family residence; the proposed additional building is a duplex.

Any proposed modifications of regulations shall be listed in a statement accompanying the application submission and such modifications shall be subject to the provisions of Section 11.1.5 and Section 11.1.6.
No additional modification of regulations is proposed. **Affirmative finding.**

Section 11.1.5 Approval Requirements

(a) The minimum project size requirements of Section 11.1.3 shall be met;
There is no minimum project size for a PUD within the RM Zone.

(b) The minimum setbacks required for the district have been met at the periphery of the project;
See table 4.4.4-1 and Section 11.1.4, above.

(c) The project shall be subject to design review and site plan review of Article 3, Part 4 and the standards of Article 6.
See Articles 3 and 6, above.

(d) The project shall meet the requirements of Article 10 for subdivision review where applicable;
Not applicable.

(e) Density, frontage, and lot coverage requirements of the underlying zoning district have been met as calculated across the entire project;
The proposed three units falls within acceptable density limits of the zoning district. Frontage and lot coverage meet standards as defined.

(f) All other requirements of the underlying zoning district have been met as calculated across the entire project;
Parking is deficient per Article 8. **Adverse finding.**

(g) Open space or common land shall be assured and maintained in accordance with the conditions as prescribed by the DRB
As submitted green space is available, but the plan has not formally articulated any areas for common resident recreational area or public shared space. **Affirmative finding if conditioned.**

(h) The development plan shall specify reasonable periods within which development of each phase of the planned unit development may be started and shall be completed. Deviation from the required amount of usable open space per dwelling unit may be allowed provided such deviation shall be provided for in other sections of the planned unit development.
A phasing schedule has not been requested or suggested. Any proposed phasing plan will need to be approved by the DRB as part of conditions. Not applicable.

(i) The intent as defined in Sec. 11.1.1 is met in a way not detrimental to the city's interests; Sec. 11.1.1, Intent

(a) Promote the most appropriate use of land through flexibility of design and development of land;

Construction of an additional residential structure on this parcel will "fill in the streetscape" in a void between buildings. Within the existing, residential neighborhood where development patterns illustrate residential dwellings situated in close proximity, the plan makes sense. **Affirmative finding.**

(b) Facilitate the adequate and economical provision of streets and utilities;

The proposed new structure can reasonably be assured to be served by extended access road(s) within and throughout the neighborhood. Public utilities are available to serve the proposed project. **Affirmative finding.**

(c) Preserve the natural and scenic qualities of open space;

Although a relatively small parcel, there is opportunity for outdoor recreational space behind the houses and parking area. **Affirmative finding.**

(d) Provide for a variety of housing types;

The existing single family home will be partnered with a new duplex. The 2 new units are proposed to have three bedrooms each, which will provide new housing opportunities for families. **Affirmative finding.**

(e) Provide a method of development for existing parcels which because of physical, topographical, or geological conditions could not otherwise be developed; and,

The parcel is a characteristically modest lot in the Old North End. A PUD is the best course to add dwelling units within the developed neighborhood. **Affirmative finding.**

(f) Achieve a high level of design qualities and amenities.

The suggested building design is acceptable; the proposed materials do not reflect a high level of design quality. More durable materials are recommended. **Affirmative finding if conditioned.**

(j) The proposed development shall be consistent with the Municipal Development Plan;

From the Municipal Development Plan:

- *Support the development of additional housing opportunities within the city…" (MDP, Housing Plan, Page IX-1.S*
- *Encourage a wide range of housing options to meet the different and changing needs of households with children, the elderly, people with disabilities, and moderate and low income households…. (MDP, Housing Plan, Page IX-2.)*
- *Underdeveloped and undeveloped properties located in residential zoning districts should be assessed for suitability of housing development. (MDP, Housing Plan, Page IX-12.)*

Affirmative finding.

(k) Any proposed accessory uses and facilities shall meet the requirements of Section 11.1.6 below.
No accessory uses or facilities are proposed. It is recommended that the existing storage building/shed be considered for retention to facilitate garbage and recycling storage, bicycle parking, and equipment storage. Not applicable within constraints of application request.

Section 11.1.6 Accessory Facilities

(a) A planned unit development may contain a building or buildings intended for non-residential uses, such as but not limited to a community center, recreation facility, child care center and/or business office if the DRB determines that such use or uses are compatible with the intended principle residential use.

Not applicable.

II. Recommended Conditions of Approval, if appropriate:

1. **Impact fees**, based upon the gross new floor area will required to be paid to the city's chief administrative officer / city treasurer **at least seven (7) days prior to occupancy of the new building.** Fees will be based upon the area submitted by the applicant.
2. A 50% parking waiver and approval of an articulated Parking Management Plan by the DRB will be required for approval of this application.
3. **Prior to release of the zoning permit**, an ability to serve letter will be required from the Department of Public Works to confirm adequate waste and water capacity.
4. Residential occupancy limits are subject to the Functional Family definition of Article 13 and residential density provisions of the ordinance. Not more than 4 unrelated adults may occupy any unit.
5. It would be preferable to retain the accessory structure as a shelter for bicycles, recycling, garage recepticles, and other personal storage items associated with residential use.
6. Unless specifically altred by the DRB, hours of construction are limited to M-F 7:00 am to 5:30 pm, with Saturday hours limited to interior work.
7. Any future enlargement or alteration of the use will require return to the DRB for review to permit the specifying of new conditions.
8. An **Erosion Prevention and Sediment Control Plan** will be required for site development and must be approved in writing by the City Stormwater staff.
9. An area shall be identified for snow storage for review and approval by staff **prior to release of the zoning permit.**
10. Any requirement for ADA access is under the review of the building inspector.
11. A revised **landscaping plan** shall be required for review and approval **prior to release of the zoning permit.** The plan shall include landscaping or similar screening to prevent headlight spill onto neighboring residential properties, and appropriate screening of utilities.
12. A full cut-off residential lighting fixture or recessed fixtures within a canopy enclosure are recommended for the rear entry. Spec sheets shall be provided to staff for review and approval.
13. Some roof canopy is recommended over the rear entry door.
14. The applicant shall confirm that the entrance steps and porch are fully outside the public right-of-way, located within the boundaries of the parcel.

15. Sheathing and trim are recommended to be a more durable material, like fiber cement board or wood clapboard. Warranties of 50 years are likely to exceed the life expectancy of the proposed vinyl and better meet the standards of Article 6, Section 6.3.2 (e).
16. All new construction is required to meet the Guidelines for Energy Efficient Construction pursuant to the requirements of Article VI. Energy Conservation, Section 8 of the City of Burlington Code of Ordinances.
17. A minimum of 2 bicycle parking spaces shall be provided on-site. The location shall be identified on revised plans **prior to release of the zoning permit**. Long term bike storage is strongly recommended.
18. If a parking waiver is extended, the applicant shall report back to staff in three years' time to define the efficacy of the waiver.
19. Standard Permit Conditions 1-15.

NOTE: These are staff comments only. The Development Review Board, who may approve, table, modify, or deny projects, makes decisions.

16 ROSE STREET DUPLEX

INDEX OF DRAWINGS:

COVER
A-1.0 FOUNDATION/BASEMENT PLAN
A-2.0 FIRST FLOOR PLAN
A-2.1 SECOND FLOOR PLAN
A-3.0 EXTERIOR ELEVATIONS
A-4.0 SECTIONS & DETAILS
A-5.0 SITE PLAN

ARCHITECTURAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF INTERIOR WALL STUD AND EXTERIOR WALL STUD. FIELD VERIFY ALL DIMENSIONS IN FIELD PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO ARCHITECT/DESIGNER.
2. PLUMBING FIXTURES, APPLIANCES, CABINETS AND LIGHTING FIXTURES TO BE DETERMINED BY OWNER.
3. ROOF CONSTRUCTION TO COMPLY WITH R49 REQUIREMENTS. PROVIDE 24" MIN. OF ICE AND WATERSHIELD AT RIDGE, VALLEYS AND EDGE OF ROOF. PROVIDE CONTINUOUS AIR FLOW FROM SOFFIT VENTS TO RIDGE VENTS.
4. CONTRACTOR TO COMPLY WITH LOCAL BUILDING CODES & VERMONT ENERGY CODES.
5. ALL BATHROOMS WALLS & CEILINGS TO BE ⅝" MOISTURE RESISTANCE GYPSUM WALL BOARD. BATHROOM WALLS TO BE INSULATED W/ 3" QUITE ZONE SOUND BATTS.
6. ⅝" FC FIRE RATED GWB TO BE USED ON ANY PARTY WALLS AS WELL AS CEILINGS. ALL OTHER GWB TO BE ½".
7. G4 DESIGN STUDIOS IS NOT RESPONSIBLE FOR FRAMING DETAILS, STRUCTURAL DETAILS, FINISH WORK, MILLWORK, WEATHER TIGHT CONSTRUCTION, FINISH GRADING OR CONCRETE WORK.
8. GENERAL CONTRACTOR TO COORDINATE WITH CONCRETE CONTRACTOR AND OWNER FOR PENETRATIONS THROUGH CONCRETE SLAB.
9. IF OWNER/CONTRACTOR MAKE CHANGES DURING THE CONSTRUCTION PROCESS WITHOUT WRITTEN AUTHORIZATION FROM G4 DESIGN STUDIOS (G4 DESIGN). G4 DESIGN IS NOT LIABLE FOR ERRORS OR OMISSIONS THAT MAY OCCUR TO THE CONSTRUCTION DRAWINGS.
10. GENERAL CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR FOR HVAC SYSTEM.
11. GENERAL CONTRACTOR TO COORDINATE WITH ELECTRICAL CONTRACTOR & OWNER FOR LOCATIONS OF OUTLETS, LIGHTING FIXTURES, CABLE, INTERNET & LIGHT SWITCH LOCATIONS.

SPECIFIC CODE INFORMATION

1. THE 2012 NATIONAL ELECTRICAL CODE, THE 2012 INTERNATIONAL BUILDING CODE AND THE 2012 NFPA 101 LIFE SAFETY CODE CHAPTER 30, 2012 NFPA 1, THE 2012 VRMONT FIRE & SAFETY CODE, AND THE 2012 ADA STANDARDS FOR ACCESSIBLE DESIGN
2. ADEQUATE FIRE EXTINGUISHERS MUSST BE INSTALLED ON THE PREMISES IN A VISIBLE LOCATION IN ACCORDANCE WITH NFPA 101 LIFE SAFTY CODE.
3. THE LIVE LOAD USED IN THE DESIGN OF THE EXTERIOR DECKS OR BALCONY AREAS MUST NOT BE LESS THAN 60 POUNDS PER SQUARE FOOT. (TABLE 1607.1 OF THE INTERNATIONAL BUILDING CODE 2012.
4. ELECTRICALLY WIRED SMOKE AND C/O DETECTORS WITH BATTERY BACKUP MUST BE PROVIDED ON EACH FLOOR LEVEL INCLUDING BEDROOMS. DETECTORS LOCATED WITHIN EACH DWELLING UNIT MUST BE WIRED IN SUCH A MANNER THAT THE ACTIVATION OF ANY DEGTECTOR WILL SOUND ALL ALARMS WITHIN THAT INDIVIDUAL UNIT, SECTION 24.3.4.1 NFPA 101 LIFE SAFETY CODE 2012.
5. EACH BEDROOM, OR ANY OTHER ROOM USED AS LIVING AREAS MUST BE PROVIDED WITH AT LEAST 1 WINDOW MEETING THE REQUIRMENTS FOR EGRESS AND RESCUE. THE MINIMUM NET CLEAR OPENING MUST BE 5.7 SQ. FT. AND THE SILL HEIGHT MUST NOT BE MORE THAN 44 INCHES ABOVE THE FLOOR. THE MINIMUM NET CLEAR OPENING HEIGHT IS 24 INCHES AND THE MINIMUM NET CLEAR OPENING OF 820 SQUARE INCHES. WHEN USING A DOUBLE-HUNG WINDOW; THE 5.7 SQ. FT. OF OPERABLE AREA MUST BE IN THE BOTTOM SASH, NFPA 101 24.2.2.3 CODE 2012.
6. BUILDING SERVICE EQUIPMENT MUST BE INSTALLED IN ACCORDANCE WITH APPLICABLE STANDARDS AND THE MANUFACTURE'S SPECIFICATION.
7. HANDRAILS ARE REQUIRED ON THE STAIRS. THE HANDRAILS MUST NOT BE LESS THAN 34 INCHES NOR MORE THAN 38 INCHES ABOVE THE LEADING EDGE OF TREADS. HANDRAILS SHALL HAVE A CIRCULAR CROSS WITH AN OUTSIDE DIA. OF AT LEAST 1 1/4 INCHES AND NOT GREATER THAN 2 INCHES.
8. THE HEIGHT OF GUARD RAILS ON THE OPEN SIDE OF STAIRS, LANDINGS AND BALCONIES MUST NOT BE LESS THAN 42" MEASURED FROM THE ADJOINING WALKING SURFACE. OPEN GUARDS SHALL HAVE INTERMEDIATE RAILS OR AN ORNAMENTAL PATTERN SUCH THAT A SPHERE 4" INCHES IN DIA. SHALL NOT PASS THRU ANY OPENING UP TO A HEIGHT OF 34 INCHES, SECTION 57.2.2.4.4.6 OF NFPA 101 LIFE SAFTY CODE 2012.
9. THE MAXIMUM RISER HEIGHT FOR THE RESIDENTIAL STAIRS MUST BE 7 3/4" AND THE MINIMUM TREAD DEPTH, MEASURED NOSE TO NOSE MUST BE 10", VERMONT STATE CODE.
10. THE MINUMUM WIDTH OF THE STAIRS MUST BE 36" AND THE MINUMUM HEADROOM MUST BE 6'-8", TABLE 7.2.2.1(b) NFPA 101 LIFE SAFETY CODE 2012.
11. AS OF APRIL 1, 2012 THE NEW ACCESSABILITY STANDARDS (ACT 88) FOR RESIDENTIAL UNITS BECAME EFFECTIVE. AS ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF VERMONT, THE STANDARDS APPLY TO ONE, TWO AND THREE FAMILY DWELLINGS, AS WELL AS TO BUILDINGS WITH FOUR OR MORE DWELLING UNITS. THE NEW STANDARD REMOVES THE VERTICLE ACCESS REQUIRMENT (RULE 13). INSTEAD, IT REQUIRES THAT ANY RESIDENTIAL CONSTRUCTION SHALL BE BUILT TO COMPLY WITH THE FOLLOWING STANDARDS:
    A. AT LEAST ONE FIRST FLOOR EXTERIOR DOOR THAT IS AT LEAST 36" WIDE
    B. FIRST FLOOR INTERIOR DOORS BETWEEN ROOMS THAT ARE 34" WIDE OR OPEN DOORWAYS THAT ARE AT LEAST 32 INCHES WIDE WITH THRESHOLDS THAT ARE LEVEL, RAMPED OR BEVELED.
    C. INTERIOR HALLWAYS AT LEAST 36" WIDE
    D. ENVIRONMENTAL AND UTILITY CONTROLS AND OUTLETS THAT ARE LOCATED AT HEIGHTS THAT ARE IN IN COMPLIANCE WITH STANDARDS ADOPTED BY THE VERMONT ACCESS BOARD.
    E. BATHROOM WALLS MUST BE REINFORCED TO PERMIT THE INSTALLATION OF FUTURE GRAB-BARS IN COMPLIANCE WITH STANDARDS ADOPTED BY THE VERMONT ACCESS BOARD.
12. A READILY ACCESSABLE OPENING NOT LESS THAN 22" BY 30" MUST BE PROVIDED TO EACH ATTIC SPACE HAVING A CLEAR HEIGHT OF OVER 30 INCHES. THE ATTIC ACCESS OPENING IS NOT PERMITTED TO BE WITHIN A CLOSET OR OTHER SPACE THAT WOULD POTENTIALLY NOT BE READILY ACCESSABLE BY USE OF A FIRE DEPARTMENT ATTIC LADDER, IF AN INTERIOR ACCESS IS PROVIDED. SECTION 1209.2 INTERNATIONAL BUILDING CODE 2012.
13. A ONE HOUR FIRE RATED SEPERATION MUST BE MAINTAINED BETWEEN SEPARATE TENANTS. (TABLE 401 SUCH SEPARATION MUST EXTEND TO THE FLOOR AND/OR ROOF DECK ABOVE. THIS SEPERATION MUST ALSO BE FIRE STOPPED AT THE FLOOR AND CEILING LEVEL. SECTION 706.4 INTERNATIONAL BUILDING CODE 2012.
14. THE GYPSUM WALLBOARD ON ANY FIRE RATED PARTY WALL AND CORRIDOR WALL MUST BE IN PLACE BEFORE THE INSTALLATION OF BATH TUBS ON SUCH WALLS.

BUILDING DESCRIPTION	SQ FT PER UNIT
BASEMENT SQUARE FOOTAGE	962 SF
FIRST FLOOR SQUARE FOOTAGE	962 SF
SECOND FLOOR SQUARE FOOTAGE	962 SF
TOTAL (LIVING SPACE)	1,924 SF
BUILDING CONSTRUCTION TYPE - 5B WOOD FRAME CONSTRUCTION MULTI-FAMILY	
FIRE RESISTANCE ELEMENTS- EXTERIOR LOAD BEARING WALLS EXTERIOR NON-LOAD BEARING WALLS DWELLING UNIT SEPERATION WALLS SMOKE BARRIER (DRYWALLED TRUSS GOES TO ROOF SHEATHING)	FIRE RESISTANCE ELEMENTS- 1 HR U305 0 HRS (IF IN EXCESS OF 10' SEPARATION) 1 HR U328
DESIGN LOAD MINIMUMS- FIRST FLOOR SECOND FLOOR EXTERIOR DECK AND/OR PORCH ROOF	DESIGN LOAD MINIMUMS- 50# LIVE LOAD, 15# DEAD LOAD 40# LIVE LOAD, 15# DEAD LOAD 100# LIVE LOAD, 15# DEAD LOAD 40# GROUND SNOW LOAD, 10# DEAD LOAD 90 MPH BASIC WIND SPEED
ADA REQUIRMENTS- SEE ITEM #11 IN 'SPECICIC CODE REQUIRMENTS'	ADA REQUIRMENTS- SEE ITEM #11 IN 'SPECICIC CODE REQUIRMENTS'

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DEPARTMENT OF PLANNING & ZONING

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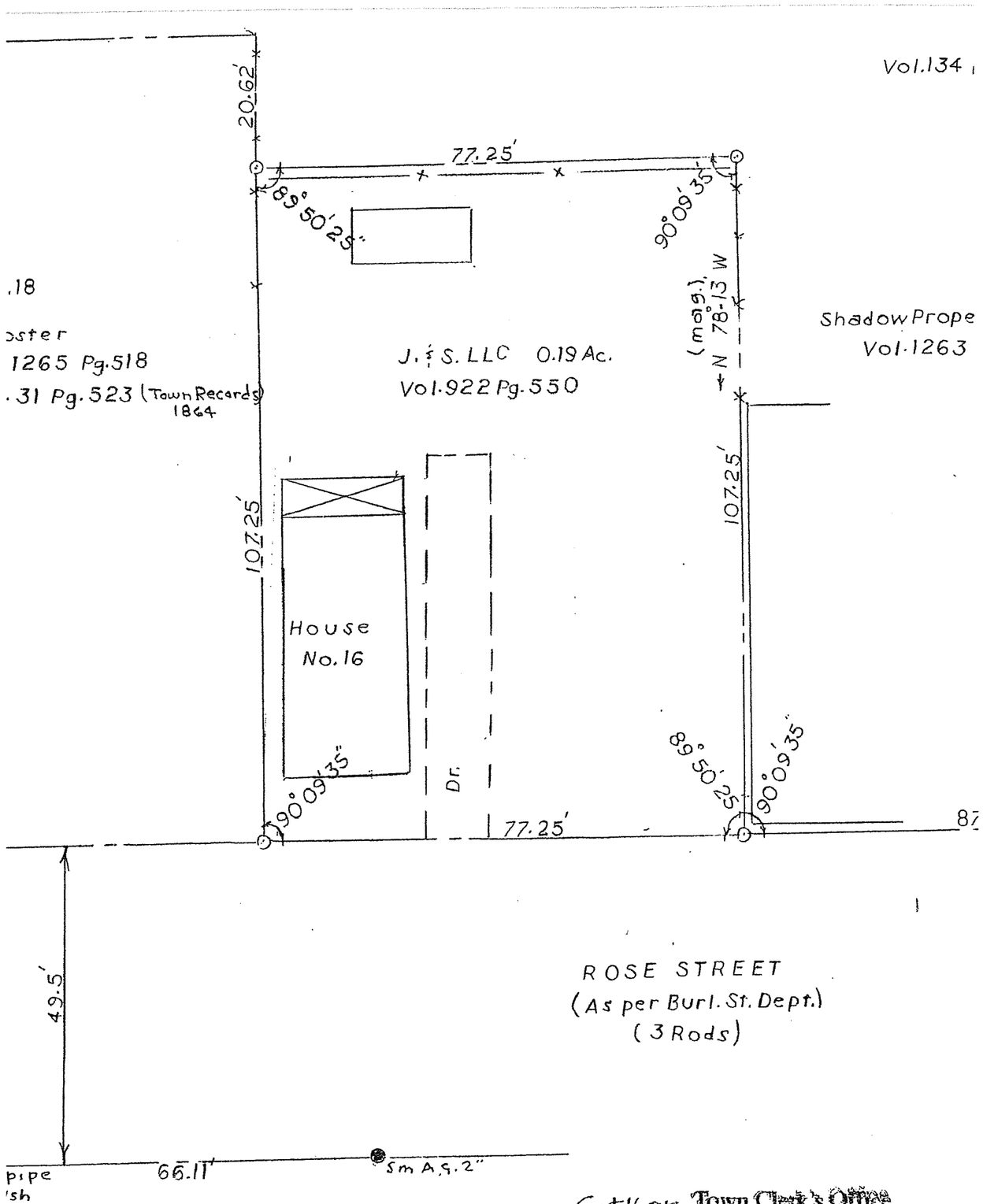
16 ROSE STREET
NEW DUPLEX
BURLINGTON, VERMONT

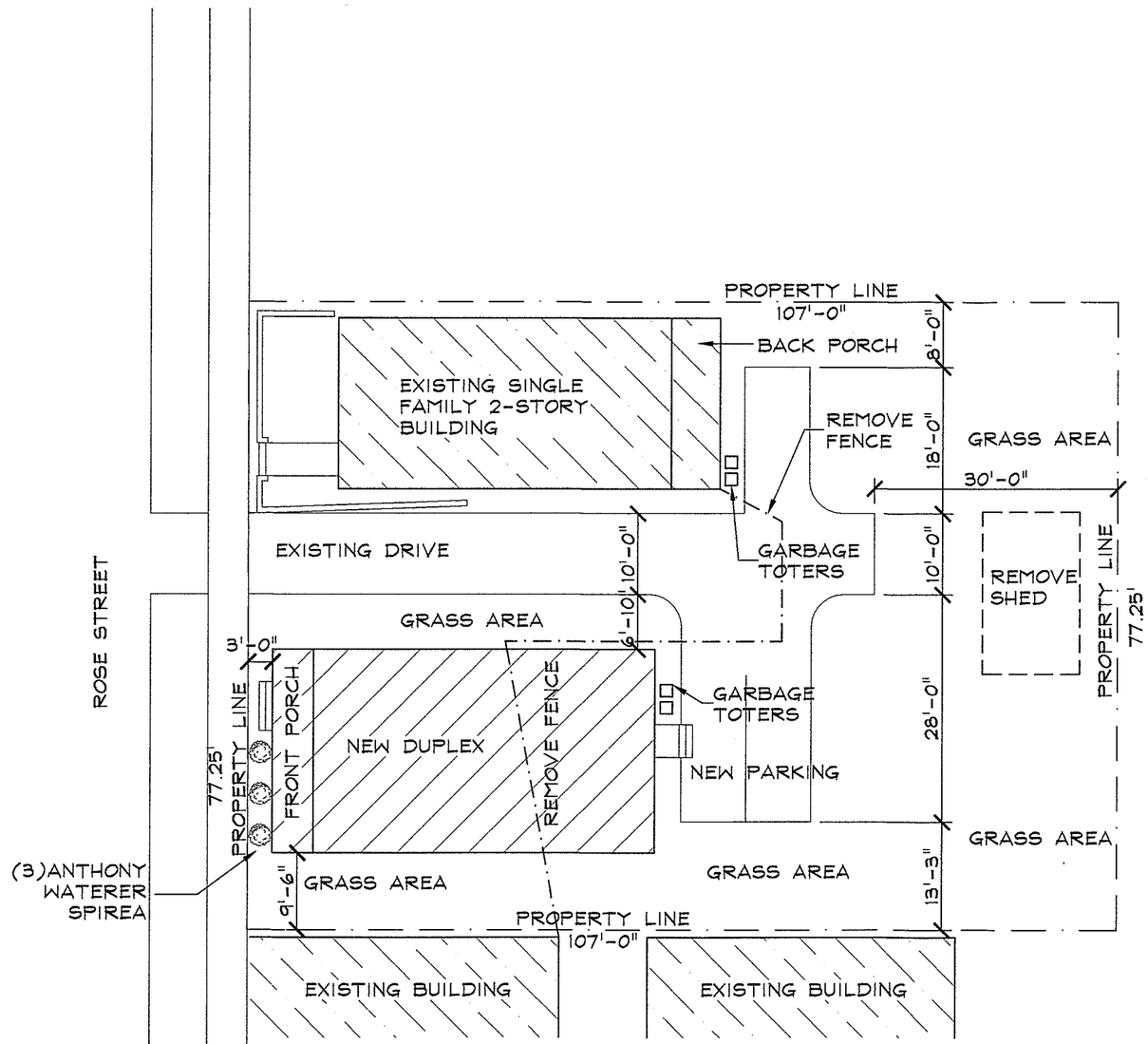
SCALE:	N/A
DATE:	12/8/2015
DRAWN BY:	WGI
CHECKED BY:	G4
PROJECT:	16 ROSE

SHEET TITLE:
COVER SHEET

DRAWING NO.
COV



City or Town Clerk's Office
Received For The Record



N

SITE PLAN
SCALE: 1:100

SITE INFORMATION:	
LOT SIZE:	8,285 S.F.
EXISTING BUILDING COVERAGE:	861 S.F.
EXISTING DRIVEWAY	880 S.F.
NEW BUILDING COVERAGE:	1,050 S.F.
NEW PARKING:	800 S.F.
TOTAL COVERAGE:	3,291 S.F.
% COVERAGE:	39%
ADDITIONAL 10% LOT COVERAGE:	
EXISTING WALKWAYS & BACK PORCH	165 S.F.
NEW FRONT PORCH & WALKWAYS	157 S.F.
% COVERAGE	4%
ZONE: RM	

GENERAL NOTES
SITE PLAN IS BASED ON HAND MEASUREMENTS TAKEN ON SITE AND CITY RECORDS.

LOCATIONS OF OBJECTS, PROPERTY LINES & DRIVES ARE APPROXIMATE. ALL UTILITIES AT AREA OF PROPOSED CONSTRUCTION SHOULD BE LOCATED AND CRITICAL DIMENSIONS VERIFIED BEFORE CONSTRUCTION BEGINS.

EXISTING UTILITIES, ABOVE GROUND OR BELOW GROUND, ARE NOT LOCATED.

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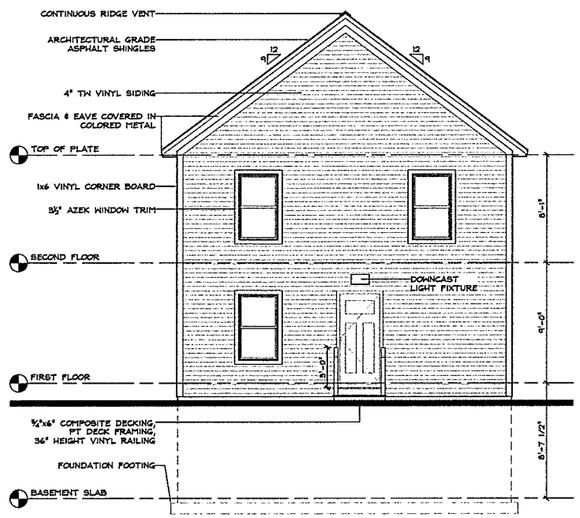
16 ROSE STREET
NEW DUPLEX
BURLINGTON, VERMONT

SCALE: 1:10
DATE: 12/8/201
DRAWN BY: WG
CHECKED BY: G4
PROJECT: 16 ROSE
SHEET TITLE:

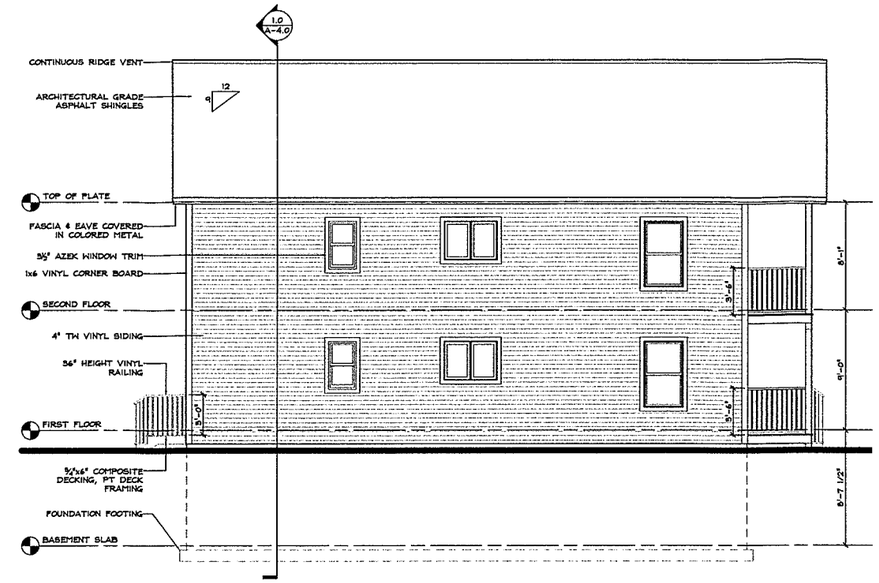
SITE PLAN

DRAWING NO.



EAST ELEVATION

SCALE: 3/16" = 1'-0"



NORTH ELEVATION

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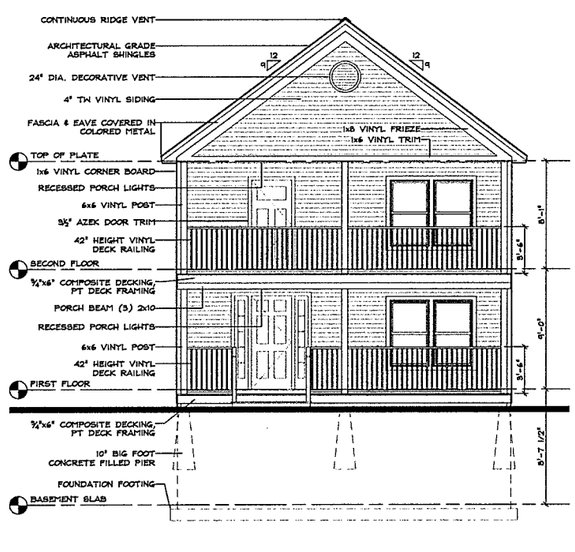

WEST ELEVATION

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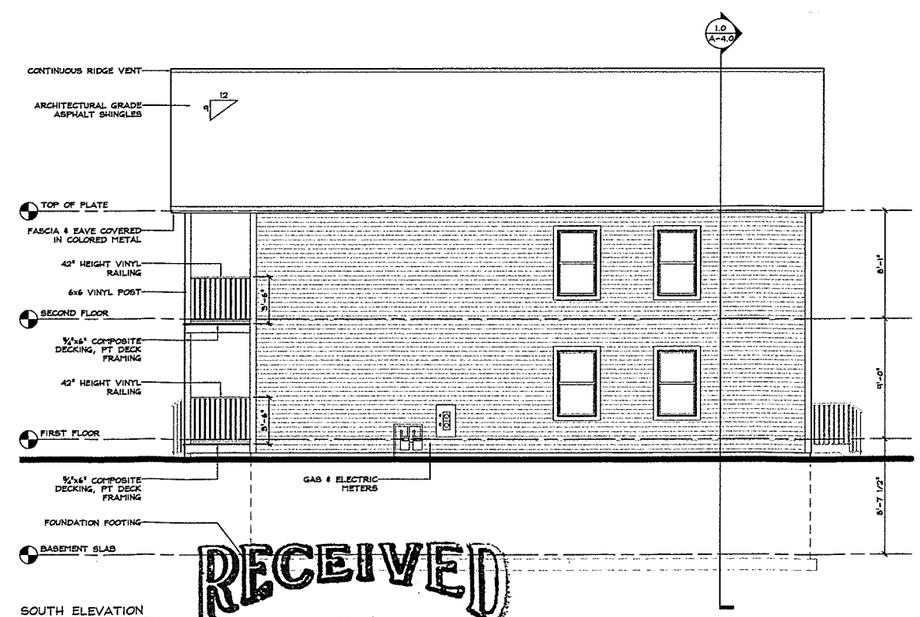

SOUTH ELEVATION

SCALE: 3/16" = 1'-0"

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16 ROSE STREET

NEW DUPLEX
BURLINGTON, VERMONT

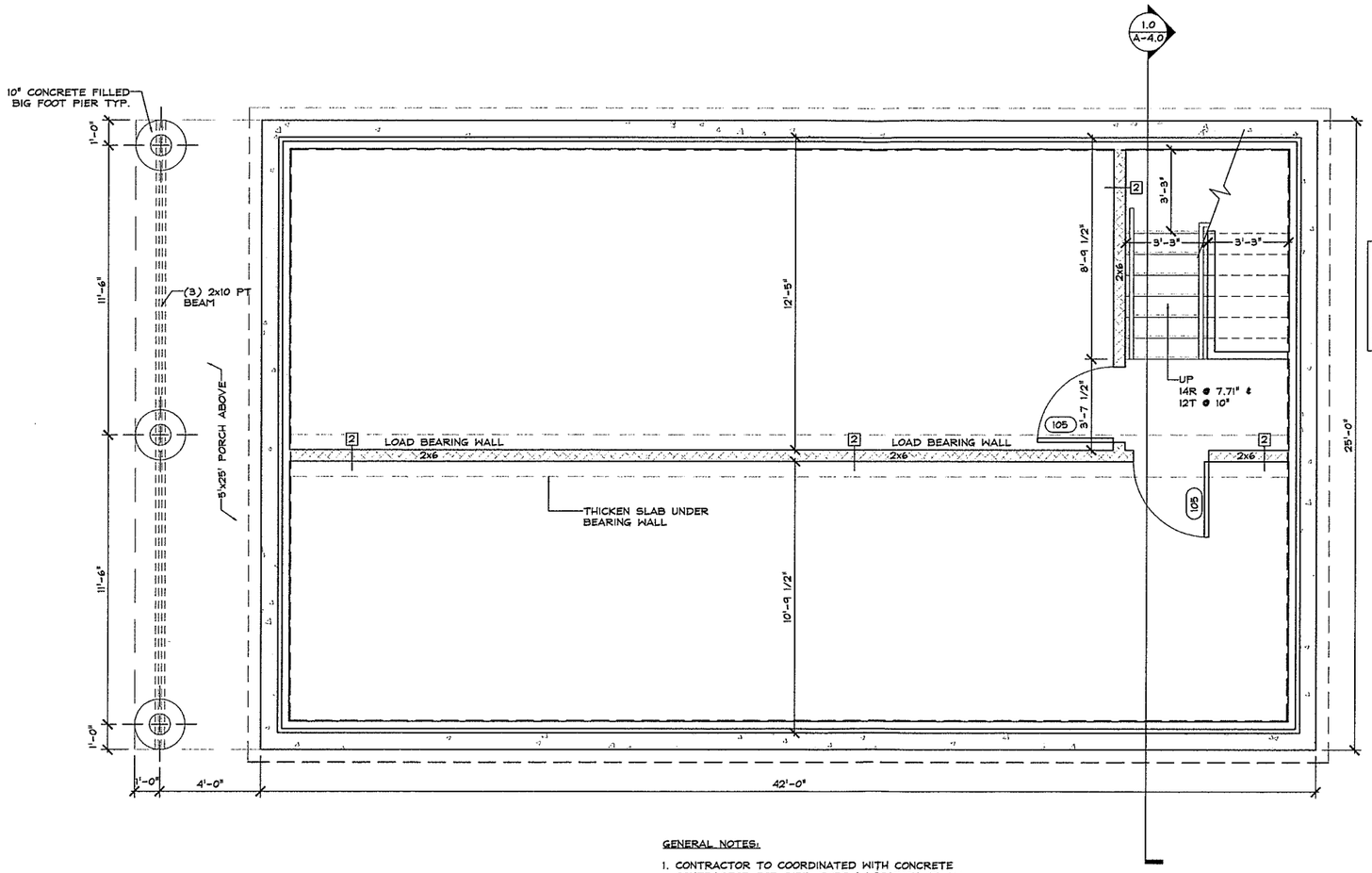
SCALE:	3/16" = 1'-0"
DATE:	12/8/2015
DRAWN BY:	WG
CHECKED BY:	G4
PROJECT:	16 ROSE

SHEET TITLE:

EXTERIOR ELEVATIONS

DRAWING NO.

A-3.0



NOTE:
STAIR TOWER NOT TO BE A HEATED SPACE, INSULATE UNIT WALLS SURROUNDING STAIR TOWER.

STAIR TOWER WALLS TO COMPLY WITH UL DESIGN #U328 1 HR FIRE RATING.

N

BASEMENT PLAN

SCALE: ⅜" = 1'-0"

WALL TYPES

- 2x6 1HR WALL, SEE SHT A-4.0
- 3" SOUND INSULATION BETWEEN STUDS

GENERAL NOTES:

1. CONTRACTOR TO COORDINATED WITH CONCRETE CONTRACTOR FOR SIZE, TYPE & LOCATION OF ALL REINFORCING IN FOUNDATION WALLS & FOOTINGS. G4 DESIGN STUDIOS IS NOT RESPONSIBLE FOR REINFORCING IN FOUNDATIONS WALLS & FOOTINGS
2. FINISH GRADING TO BE DETERMINED BETWEEN OWNER & CONTRACTOR.
3. NEW 8" THICK FOUNDATION WALLS WITH #4 REBAR FOR REINFORCING.
4. ALL FOOTINGS TO BEAR ON UNDISTURBED NATIVE SOILS OR COMPACTED STRUCTURAL FILL WITH MIN. BEARING PRESSURE OF 3,500 PSF (CONFIRMED BY OTHERS)
5. ALL CONCRETE SHALL HAVE A MIN. 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI OR MAX SLUMP OF 4"
6. ALL REINFORCING STEEL SHALL BE GRADE 60

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16 ROSE STREET
NEW DUPLEX
BURLINGTON, VERMONT

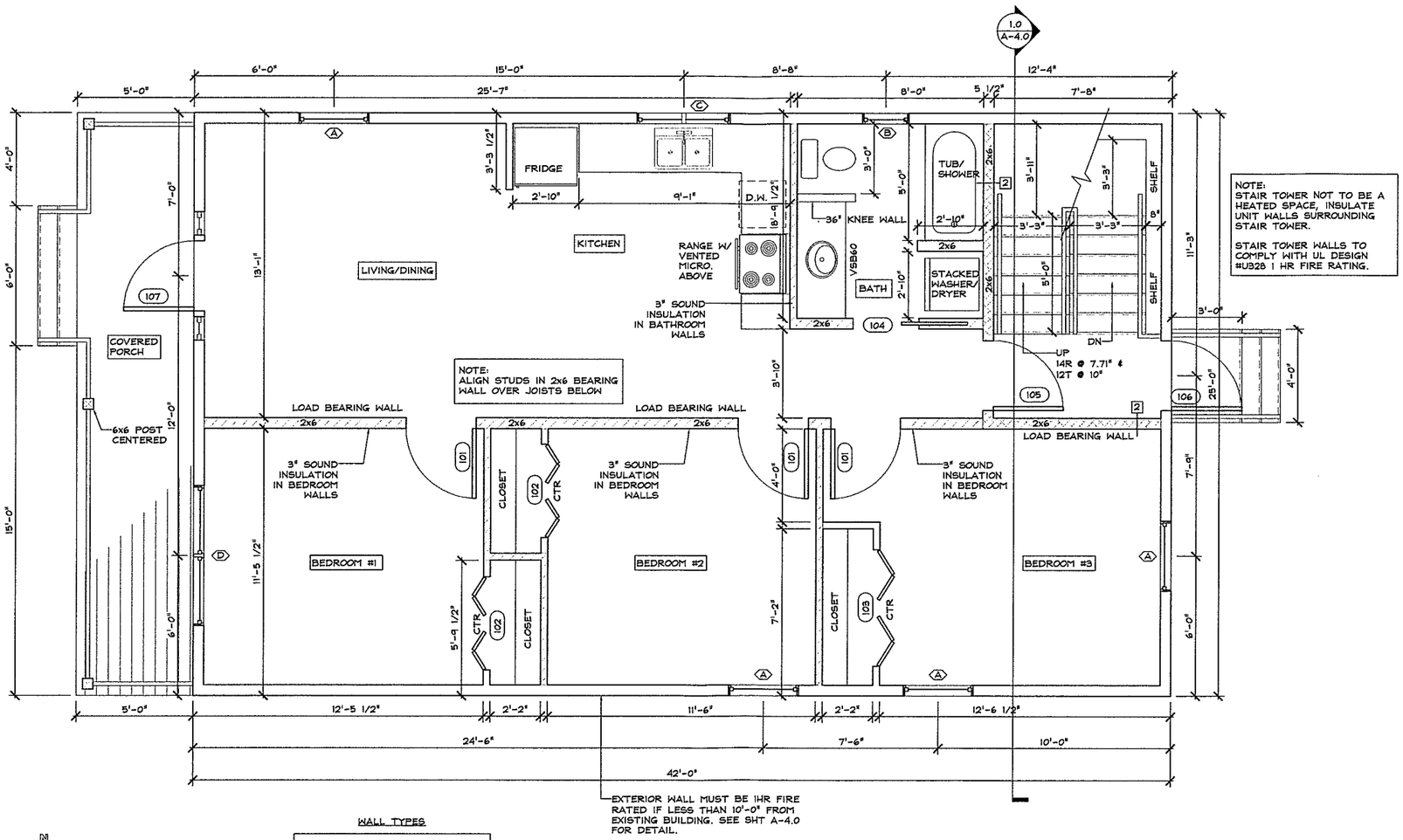
SCALE:	3/8" = 1'-0"
DATE:	12/8/2015
DRAWN BY:	WG
CHECKED BY:	G4
PROJECT:	16 ROSE

SHEET TITLE:

BASEMENT PLAN

DRAWING NO.

A-1.0



N

FIRST FLOOR PLAN

SCALE: 3/8" = 1'-0"

WALL TYPES

- 2x6 1HR WALL, SEE SHT A-4.0
- 3" SOUND INSULATION BETWEEN STUDS

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DEPARTMENT OF PLANNING & ZONING

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12/8/15

NO.	DATE	REVISION

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G4 Design Studios
77 College Street, Ste. 2A Burlington, VT 05401
(P)802-497-0895 (F)802-861-3110 G4design@Gmail.com

16 ROSE STREET

NEW DUPLEX
BURLINGTON, VERMONT

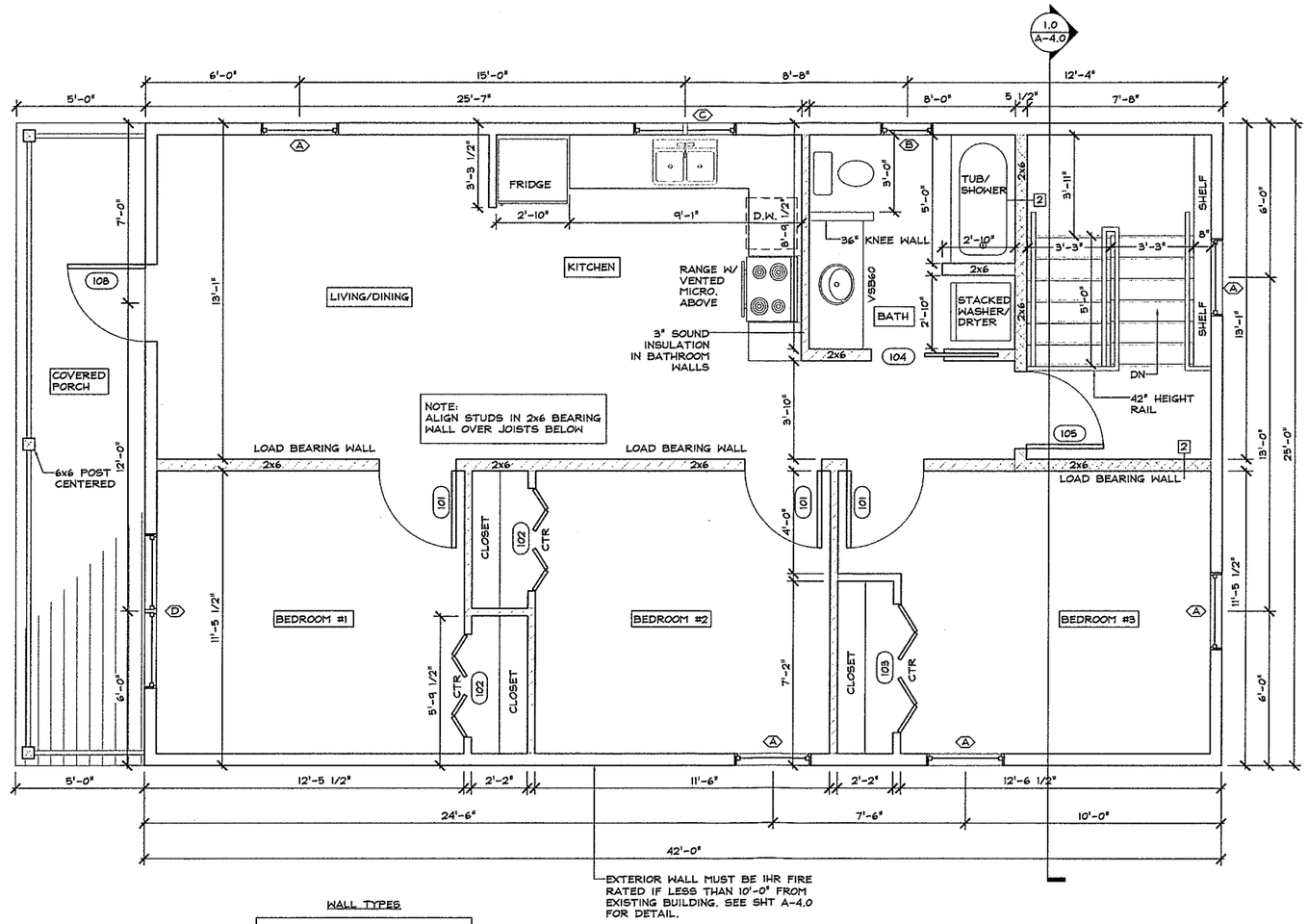
SCALE:	3/8" = 1'-0"
DATE:	12/8/2015
DRAWN BY:	WGI
CHECKED BY:	G4
PROJECT:	16 ROSE

SHEET TITLE:

FIRST FLOOR PLAN

DRAWING NO.

A-2.0



NOTE:
STAIR TOWER NOT TO BE A HEATED SPACE, INSULATE UNIT WALLS SURROUNDING STAIR TOWER.

STAIR TOWER WALLS TO COMPLY WITH UL DESIGN #U328 1 HR FIRE RATING.

N

SECOND FLOOR PLAN

SCALE: 3/8" = 1'-0"

WALL TYPES

- 2x6 1HR WALL, SEE SHT A-4.0
- 3" SOUND INSULATION BETWEEN STUDS

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16 ROSE STREET

NEW DUPLEX
BURLINGTON, VERMONT

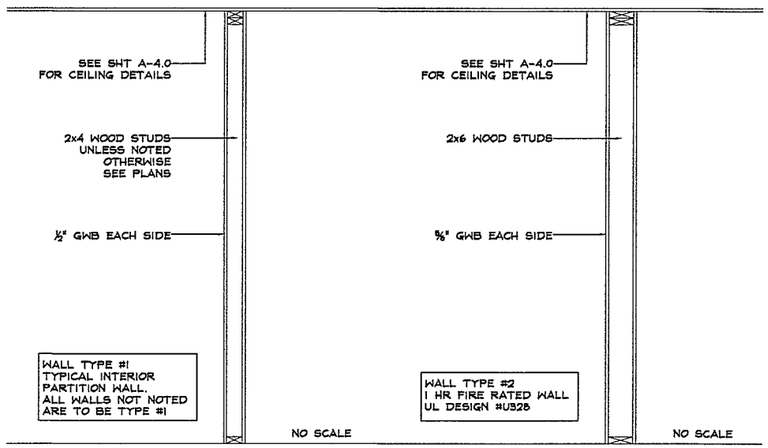
SCALE:	3/8" = 1'-0"
DATE:	12/8/2015
DRAWN BY:	WG
CHECKED BY:	G4
PROJECT:	16 ROSE

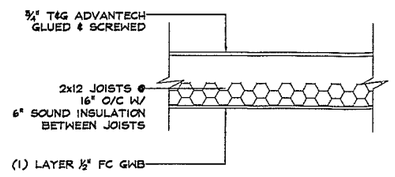
SHEET TITLE:

SECOND FLOOR PLAN

DRAWING NO.

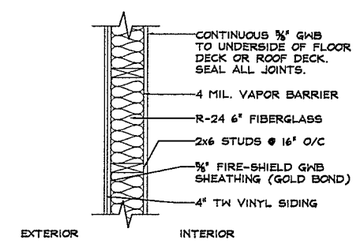
A-2.1





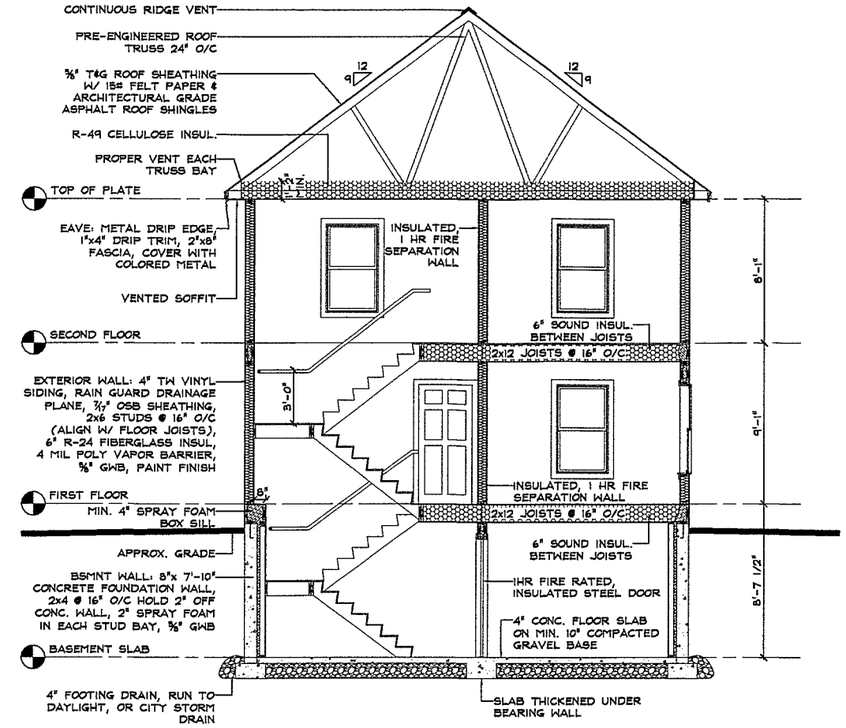
FLOOR 1 HOUR FIRE SEPARATION FLOOR SYSTEM
UL DESIGN #L503

NO SCALE



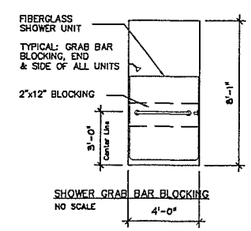
EXTERIOR 1 HOUR FIRE RATED WALL, UL DESIGN #U305.

PLAN VIEW NO SCALE

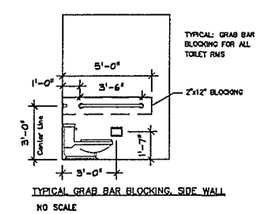


1.0 / A-4.0 BUILDING SECTION

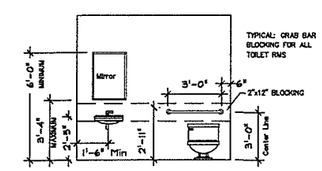
SCALE: 3/16" = 1'-0"



SHOWER GRAB BAR BLOCKING
NO SCALE



TYPICAL GRAB BAR BLOCKING, SIDE WALL
NO SCALE



TYPICAL GRAB BAR BLOCKING, BACK WALL
NO SCALE

WINDOW SCHEDULE

ID	DESC	RO(WxHT)	HEAD HEIGHT	TRIM	MANUFACTURER	REMARKS
A	3050 DH VINYL	36" x 60"	6'-8"	3½" AZEK	SIMONTON 600 SERIES, BRICKMOULD	EGRESS WINDOW
B	2034 DH VINYL	24" x 40"	6'-8"	3½" AZEK		
C	4030 CSMT VINYL	48" x 36"	6'-8"	3½" AZEK		
D	(2) 3050 DH VINYL	72" x 60"	6'-8"	3½" AZEK		EGRESS WINDOW

DOOR SCHEDULE

ID	SIZE(WxHT)	DESC	RO(WxHT)	TYPE	TRIM	HARDWARE	REMARKS
101	3/0 x 6/8	SOLID CORE	38 ½"x82 ½"	6 PANEL	PICKED BY OWNER	PRIVACY LEVER KNOB	
102	4/0 x 6/8	HOLLOW CORE	50 ½"x82 ½"	6 PANEL BI-FOLD		STANDARD BI-FOLD HDW.	
103	5/0 x 6/8	HOLLOW CORE	62 ½"x82 ½"	6 PANEL BI-FOLD		STANDARD BI-FOLD HDW.	
104	2/10 x 6/8	SOLID CORE	36 ½"x82 ½"	6 PANEL POCKET		PRIVACY LEVER KNOB	
105	3/0 x 6/8	INSULATED STEEL	38 ½"x82 ½"	6 PANEL, 1 HR FIRE RATED		LOCKSET & DEADBOLT	1 HR DOOR & ASSEMBLY
106	3/0 x 6/8	INSULATED STEEL	38 ½"x82 ½"	6 PANEL	3½" AZEK	PANIC HARDWARE	
107	3/0 x 6/8	INSULATED STEEL	64 7/16"x81"	6 PANEL W/ (2) 12" SIDELITES	3½" AZEK	LOCKSET & DEADBOLT	
108	3/0 x 6/8	INSULATED STEEL	38 ½"x82 ½"	6 PANEL	3½" AZEK	LOCKSET & DEADBOLT	

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16 ROSE STREET
NEW DUPLEX
BURLINGTON, VERMONT

SCALE: AS NOTED
DATE: 12/8/201
DRAWN BY: W
CHECKED BY: G
PROJECT: 16 ROS

SHEET TITLE:

SECTIONS & DETAILS

DRAWING NO.
A-4.0

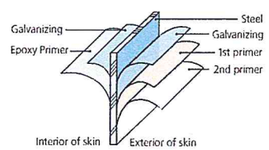
EXTERIOR STEEL DOORS

Every JELD-WEN® Steel exterior door is durable and economical.

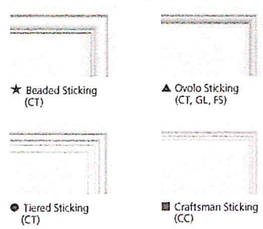
It is by no coincidence that every JELD-WEN® Steel door comes with a 10-year limited warranty. This is a line of doors built to deliver on strength and durability, from our utility-grade Gladiator® to our premium-grade Contours™.

They include wood stiles and rails with mitered top corners to prevent water absorption. Galvanized exterior door facings are factory-primed with neutral, low-sheen, baked-on enamel primer for easy finishing.

Consider how well these doors are constructed.



Steel Door Sticking Profiles



Fire-Rated Doors
Our fire-rated steel doors are made to meet or exceed local fire rating building codes for both residential and light commercial use. For true fire protection, these doors must be used with certified frames and hardware. Fire rated doors available in Contours™ steel only.

Ask your sales associate which JELD-WEN® doors are ENERGY STAR® qualified.

Visit **www.jeld-wen.com** for complete warranty information.

DOOR DESIGNS

CT = Contours Beaded or Ovolo FS = FiniShield Ovolo GL = Gladiator Ovolo CC = Craftsman

6'8" Doors

CT-100
CT, FS
Flush
2'0" x 6'8"
CT, FS, GL
2'6" x 6'8"
2'8" x 6'8"
3'0" x 6'8"
CT
3'6" x 6'8"

CT-11
★
CT
1-Panel
Eyebrow
3'0" x 6'8"

CT-30
★ ▲
CT, FS
3-Panel
2'8" x 6'8"
3'0" x 6'8"

CT-40
▲
CT
4-Panel
2'8" x 6'8"
3'0" x 6'8"

CT-40BT
★ ▲
CT, FS, GL
4-Panel
Blank Top
2'8" x 6'8"
3'0" x 6'8"

CT-21
●
CT
2-Panel
2'8" x 6'8"
3'0" x 6'8"

CT-20
●
CT
2-Panel
Arch Top
2'8" x 6'8"
3'0" x 6'8"

CT-24
●
CT
2-Panel
Plank
Arch Top
2'8" x 6'8"
3'0" x 6'8"

8'0" Doors

CT8-100
CT
8'0" Flush
2'0" x 8'0"
2'6" x 8'0"
2'8" x 8'0"
3'0" x 8'0"

CT8-60
▲
CT
8'0" 6-Panel
2'6" x 8'0"
2'8" x 8'0"
3'0" x 8'0"

DURABLE & ECONOMICAL

Standard sizes shown. Contact JELD-WEN for 2'10" widths, 7'0" heights and other styles

CT-60
★ ▲
CT, FS, GL
6-Panel
2'6" x 6'8"
2'8" x 6'8"
3'0" x 6'8"
CT
3'6" x 6'8"▲

CT-80
★ ▲
CT, FS
8-Panel
2'8" x 6'8"
3'0" x 6'8"

CT-90
★ ▲
CT, FS,
9-Panel
2'8" x 6'8"
3'0" x 6'8"

CC-30
■
Craftsman
3-Panel
2'6" x 6'8"
2'8" x 6'8"
3'0" x 6'8"

6'8" Sidelights

CT-690
CT, FS
Full View SL
1'0" x 6'8"
1'2" x 6'8"

CT-422
★ ▲
CT, FS
3/4 View SL
1'0" x 6'8"
1'2" x 6'8"

CT-692
★ ▲
CT, FS
1/2 View SL
1'0" x 6'8"
1'2" x 6'8"

8'0" Sidelights

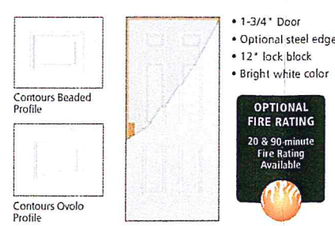
CT8-690
CT
8'0"
Full View SL
1'0" x 8'0"
1'2" x 8'0"

CT8-692
CT
8'0"
1/2 View SL
1'0" x 8'0"
1'2" x 8'0"

Contours™ Designs (CT & CC Series)

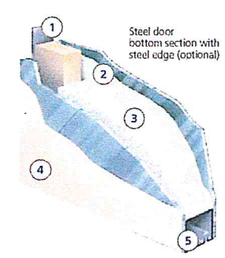
These premium doors feature a tough, galvanized steel skin that features our exclusive high-definition beaded sticking panel profile and other panel profiles in selected designs.

They're available with an optional steel edge that delivers added security and a fire rating of up to 90 minutes.



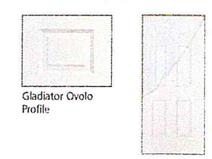
Steel Edge Construction (CT & CC Series)

1. Heavy-gauge continuous roll-formed steel edge meets 90-minute fire ratings
2. Epoxy primer on the back of the steel resists corrosion
3. Energy efficient core
4. Two coats of neutral, low-sheen, baked-on primer for easier finishing
5. Steel bottom rail for strength



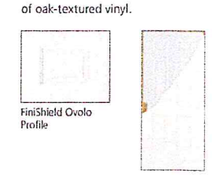
Gladiator® Designs (GL Series)

Standard utility grade steel doors



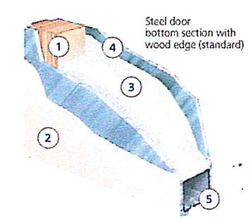
FiniShield® Designs (FS Series)

Durable steel skins covered with a seven-mil layer of oak-textured vinyl.



Wood Edge Construction (CT, CC, GL & FS Series)

1. Laminated veneer lumber (LVL) stiles and top rail for sturdy construction that resists warping and buckling
2. Two coats of neutral, low-sheen, baked-on enamel primer for easier finishing
3. Energy efficient core
4. Epoxy primer on the back of the steel skin prevents corrosion
5. Steel bottom rail for strength



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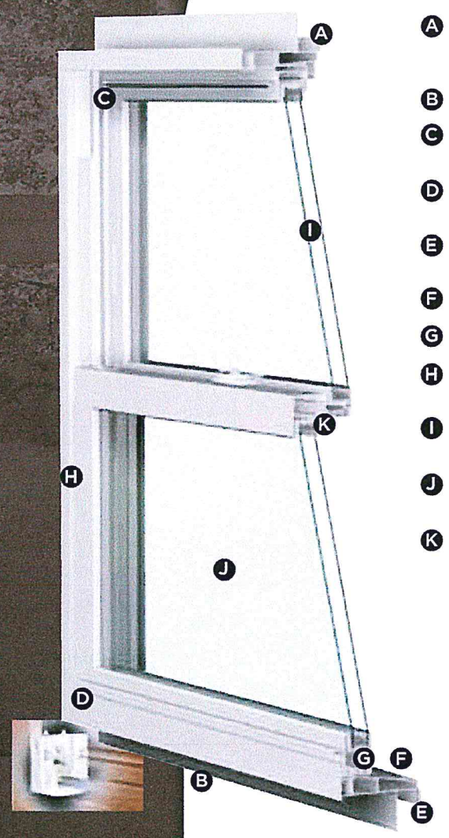
Brickmould **Series**

WE SELL ENERGY STAR

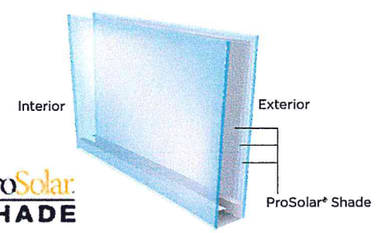
ProFinish® Brickmould 600 windows can be ordered to meet ENERGY STAR® guidelines.

Double Hung



- **A** **Integral Brickmould/J-channel** For the ultimate jobsite versatility, an integral brickmould serves double duty and also functions as a J-channel so it can be used in multiple applications, including brick and vinyl.
- **B** **Integral Nailing Fin** An integrated nailing fin makes accurate installation easier and more efficient.
- **C** **Fusion-welded Frame and Sash** The one-piece strength of the fusion-welded frame and sash makes for greater rigidity and easier handling.
- **D** **1/2" Coil Spring Balance System** The unique balance system keeps the frame and sash in perfect vertical alignment for more precise installation and smooth performance over time.
- **E** **Multi-tiered Exterior** A stepped design has a classic, chiseled appearance that complements both brick and siding exteriors.
- **F** **Sloped Sill Design** A special sill design initiates quick water drainage.
- **G** **Sill Dam Weatherstripping** Additional weatherstripping serves as an effective weather barrier.
- **H** **Premium Vinyl Profiles** Remarkably strong vinyl is easy to handle, will retain its low-maintenance beauty for years and provides excellent thermal performance.
- **I** **7/8" Insulating Glass Unit** The 7/8" insulating glass unit is set 3/4" into the sash for increased thermal performance.
- **J** **ProSolar® Low E Glass with an Argon Gas Fill** This advanced glass package, standard on Brickmould 600 series, delivers impressive thermal efficiency and interior comfort.
- **K** **Overlapping, Interlocking Meeting Rail** The meeting rail both overlaps and interlocks the sash, making the window virtually impervious to weather infiltration.

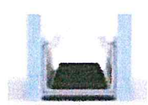
ProSolar® Shade is an advanced, spectrally selective glass that features three layers of silver for maximum insulation. This impressive glass offers the ultimate in solar heat control, fading protection, visibility and energy savings.



ProSolar SHADE

Only windows built this well could be backed by a warranty this good. Simonton ProFinish® Brickmould 600 windows feature a transferrable Lifetime Limited Warranty for complete homeowner confidence.

The **Intercept® spacer system**, standard on Brickmould 600 windows, features a unique U-channel design that minimizes condensation and keeps glass surfaces warmer for increased efficiency and comfort. The U-shape design flexes and contracts, helping to reduce seal failure in the insulating glass unit.



For even greater thermal performance and dependability, the optional **Supercept™** spacer combines a U-channel design with the strength of a stainless steel alloy.

SafePoint™ Impact-resistant Glass, a laminated glass, optional on Brickmould 600, provides protection against high winds and flying debris, helps deter forced entry and reduces unwanted noise infiltration.

SIMONTON WINDOWS®
We make lasting impressions.™

Corporate Headquarters: 3948 Townsfair Way, Suite 200, Columbus, Ohio 43219
1-800-SIMONTON (1-800-746-6686) | simonton.com

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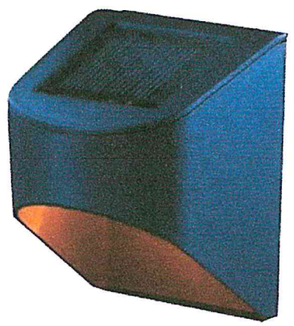
Your Store: **Williston #4501**
Use Current Location or find store

Hampton Bay | Model # 43002.com | Internet # 205793194

Black Outdoor Solar Powered Downcast Deck Light (2-Pack)

★★★★: (6) | Write a Review | Questions & Answers (4)



$12.97 /set

PRODUCT NOT SOLD IN STORES

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Open Expanded View

Click Image to Zoom

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PRODUCT OVERVIEW

Model # 43002.com Internet # 205793194

This traditional style solar deck light comes in 2-pack to provide just the right amount of light to any outdoor space. Illuminate your outdoor walkways, decks, patio areas and gardens with the simple to install hardware and instructions. The LED light source makes this product even more energy efficient and provides a long lasting light source.

- Polymeric construction ideal for outdoor durability
- Illuminate decks, stairways, fence, and other walkways and pathways
- Comes with mounting hardware and easy to install instructions
- Limited 1-year warranty

SPECIFICATIONS

DIMENSIONS

Product Depth (in.)	3.15	Product Length (in.)	3.15
Product Height (in.)	3.8	Product Width (in.)	3.15

DETAILS

Actual Color Temperature (K)	3000	Light Source	LED
Adjustable Lamp Head	No	Lighting Kit	No
Bulb Type	LED	Motion Sensor	No

Bulb(s) Included	Yes	Mounting Type	Deck
Color Rendering Index	0	Number of Bulbs Required	0
Color Temperature	Warm White	Number of Housings Included	0
Dusk to Dawn	No	Outdoor Lighting Features	No additional features
Exterior Lighting Product Type	Deck Rail Lights	Power Type	Solar
Fixture Color/Finish	Textured Black	Product Weight (lb.)	0.79 lb
Glass/Lens Type	No glass/lens	Returnable	90-Day
Landscape Lighting Application	Deck & Stair Lighting	Waterproof	Yes
Light Output (lumens)	4	Weather Resistant	Yes

WARRANTY / CERTIFICATIONS

Certifications and Listings	No Certifications or Listings	Manufacturer Warranty	1 Year Limited
ENERGY STAR Certified	No		

MORE PRODUCTS WITH THESE FEATURES

Exterior Lighting Product Type: **Deck Rail Lights**

Outdoor Lighting Features: **No additional features**

Price: **$10 - $20**

Brand: **Hampton Bay**

Power Type: **Solar**

Light Source: **LED**

Dusk to Dawn: **No**

SEARCH

Burlington Development Review Board
149 Church Street, City Hall
Burlington, VT 05401
www.burlingtonvt.gov/pz/DRB
Telephone: (802) 865-7188
Fax (802) 865-7195

Austin Hart
Brad Rabinowitz
Jonathan Stevens
Alexandra Zipparo
Israel Smith
AJ LaRosa
Geoff Hand
Wayne Senville, (Alternate)
Jim Drummond, (Alternate)

BURLINGTON DEVELOPMENT REVIEW BOARD
Tuesday February 2, 2016, 5:00 PM
Contois Auditorium, City Hall, 149 Church Street, Burlington, VT
AMENDED AGENDA

I. Agenda
II. Communications
III. Minutes

IV. Public Hearing

1. **16-0730CU; 1 Mill St (NMU, Ward 1E) Catamount Holding Co**
   Change of use from warehouse/office/lab space to primary and secondary school. No site or exterior building changes. (Project Manager, Mary O'Neil)

Certificate of Appropriateness

V.

1. **16-0007CA; 351 North Ave (RM-W, Ward 4N) Burlington College**
   Amendments: remove 1st floor assembly space, add two living units and two parking spaces, relocate/redesign west entrance with associated landscape changes add small fenced in dog park, add grilling patio, utility pad, 65 indoor bike parking, retain porte cochere. (Project Manager, Scott Gustin)

2. **16-0762PD; 16 Rose St. (RM, Ward 3C) J & S LLC**
   Build a duplex on a parcel with an existing single family home.
   (Project Manager, Mary O'Neil)

VI. Sketch Plan

1. **16-0711SP; 435-441 Shelburne St (RM, Ward 5S) Mitchel Robinson**
   Sketch plan review to convert existing 12 bedroom rooming house and 2-person duplex to a 10 unit multifamily residential apartment building. (Project Manager, Scott Gustin)

VII. Other Business
VIII. Adjournment

Plans may be viewed in the Planning and Zoning Office, (City Hall, 149 Church Street, Burlington), between the hours of 8:00 a.m. and 4:30 p.m.

Participation in the DRB proceeding is a prerequisite to the right to take any subsequent appeal. Please note that ANYTHING submitted to the Planning and Zoning office is considered public and cannot be kept confidential.

This may not be the final order in which items will be heard. Please view final Agenda, at www.burlingtonvt.gov/pz/drb/agendas or the office notice board, one week before the hearing for the order in which items will be heard.

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