TOWN OF VERNON

Planning & Zoning Commission (PZC)

Meeting Notice & Agenda

Thursday, April 21, 2022, 7:30 PM

Town Council Chambers 3rd Floor

14 Park Place

Vernon, CT 06066

AGENDA

1. **Call to Order & Roll Call by Roland Klee, Chairman**

2. **Administrative Actions/Requests**

   2.1 Amendment/Adoption of Agenda - Additional business to be considered under agenda item #6 "Other Business" requires Commission vote.

   2.2 Approval of the Minutes from the **April 7, 2022**

3. **New Application(s) for receipt, if any:**

4. **Public Hearing(s) and Action on Applications:**

   4.1 PZ 2022-08, 371 & 373 Talcottville Rd. (Continued) An Application of Allan Borghesi for a Zone Change from Special Development Zone-Economic Development (SED) to Commercial for a portion of two parcels of property located at 371 (+-1.69 acres) & 373 (+-.10) Talcottville Rd. (Tax Maps 04, Block 0004, Parcel 0006B & 0005A).

   4.2 PZ 2022-09, 77 Industrial Park Rd.-Commercial Recreation. An Application of Jason Gonzalez, requesting a special permit pursuant to Section 4.10.4.1, to allow a commercial recreation use (martial arts studio) at 77 Industrial Park Rd. (Tax Map 28, Block 0133, Parcel 0005H).

   4.3 PZ-2022-05, 501 Talcottville Rd. An Application of Vernon Development LLC for a Site Plan and Special Permits to develop a 10,000 sq.ft. day care center at 501 Talcottville Rd. (Tax Map 09, Block 007, Parcel 0001D). Special permits requested include Section 4.9.4.15.1 (more than 40 parking spaces); Section 4.9.4.15.2 (structure within 200 feet of a residence); Section 4.9.4.15.3 (parking within 100 feet of a residence). The property is zoned Commercial.

   4.4 PZ-2002-06, 501 Talcottville Rd. An Application of 501 Talcottville Rd. LLC to permit the re-subdivision of land into one additional parcel, located at 501 Talcottville Rd. (Tax Map 09, Block 0007, Parcel 0001D). The property is zoned Commercial.

5. **8-24 Referrals, If any**

6. **Other Business/Discussion**

   6.1 2022 Affordable Housing Plan Initial Draft Transmittal to be rescheduled for future meeting.

6.2 The Town of Manchester sent a notification letter to the Planning Department to inform that an application has been made by Key Hyundai of Manchester to construct a new car wash building on the subject property. This project is within 500 feet of the corporate limits of the Town of Vernon.

7. **Public Comments Received**

7.1 The Town received public comment from Judith Veillette.

8. **Adjournment**

Roland Klee, Chair
Planning & Zoning Commission

DRAFT MINUTES

TOWN OF VERNON

Planning & Zoning Commission (PZC)

Thursday, April 7, 2022, 7:30 PM

14 Park Place

Vernon, CT 06066

DRAFT MINUTES

RECEIVED
VERNON TOWN CLERK
22 APR 11 AM 10:35

1. **Call to Order & Roll Call by Roland Klee, Chairman at 7:30 PM**
   - Regular members present: Roland Klee, Carl Bard, Mike Baum, Robin Lockwood, Joseph Miller, Mike Mitchell and Iris Mullan
   - Alternate Member:
   - Absent Members: Alternate Yelena Damsky
   - Staff present: George McGregor, Town Planner and Shaun Gately, EDC
   - Recording secretary: Jill Rocco

2. **Administrative Actions/Requests**

2.1 Amendment/Adoption of Agenda - Additional business to be considered under agenda item #6 "Other Business" requires Commission vote.

Robin Lockwood **MOVED** to **ADOPT** the revised agenda. Iris Mullan seconded and the motion carried with Commissioner Bard abstaining.

2.2 Approval of the Minutes from the **March 17, 2022**

Robin Lockwood **MOVED** to **APPROVE** the minutes from March 17, 2022. Joseph Miller seconded and the motion carried unanimously.

3. **New Application(s) for receipt, if any:**

3.1 PZ 2022-09, 77 Industrial Park Rd.-Commercial Recreation. An Application of Jason Gonzalez, requesting a special permit pursuant to Section 4.10.4.1, to allow a commercial recreation use (martial arts studio) at 77 Industrial Park Rd. (Tax Map 28, Block 0133, Parcel 0005H).

Town Planner, George McGregor recommended a Public Hearing date of April 21, 2022. Robin Lockwood **MOVED** to **RECEIVE PZ 2022-09, 77 Industrial Park Rd.-Commercial Recreation** on April 21, 2022. Iris Mullan seconded and the motion carried unanimously.

3.2 PZ 2022-09, 25 Park St.-Retail Cannabis. An Application of Nick Tamborrino, SFC CT LLC, requesting a special permit pursuant to Section 4.26.5.26 (HD-DBR District) and Section 17 of the Vernon Zoning Regulations to permit allow a retail cannabis establishment at 25 Park St. (Tax Map 40, Lot 0107, Parcel 00005).

Town Planner, George McGregor recommended a Public Hearing date of May 5, 2022. Robin Lockwood **MOVED** to **RECEIVE PZ 2022-10, 25 Park St.-Retail Cannabis** on May 5, 2022. Mike Mitchell seconded and the motion carried unanimously.

4. **Public Hearing(s) and Action on Applications:**

4.1 PZ 2022-08, 371 & 373 Talcottville Rd. An Application of Allan Borghesi for a Zone Change from Special Development Zone-Economic Development (SED) to Commercial for a portion of two parcels of property located at 371 (+-1.69 acres) & 373 (+-.10) Talcottville Rd. (Tax Maps 04, Block 0004, Parcel 0006B & 0005A).

- George McGregor, Town Planner, explained the details of the application and read the Public Notice posted in the Journal Inquirer March 26, 2022 & April 2, 2022.
- Roland Klee, Chairman, read the rules of Public Hearing.
- Applicant was not present.
- George McGregor, Town Planner, gave a brief presentation on the application.
- Commission asked questions.
- Shaun Gately, EDC and George McGregor, Town Planner, responded.
- Discussion ensued.
- George McGregor, Town Planner, stated that the applicant had filed the proper zone district amendment forms.
- Discussion ensued.

Carl Bard **MOVED** to **CONTINUE** the Public Hearing to April 21, 2022. Iris Mullan seconded and the motion carried with 4 Yeas (Commissioners Bard, Baum, Klee and Mullan) and 3 Nays (Commissioners Lockwood, Miller and Mitchell).

5. **8-24 Referrals, If any**

NONE

6. **Other Business/Discussion**

6.1 2022 Affordable Housing Plan Initial Draft Transmittal

- George McGregor, Town Planner, provided a copy of the **2022 Affordable Housing Plan** draft, dated April 1, 2022.
- Lengthy discussion ensued.
- George McGregor, Town Planner, suggested that the Commission fit the Public discussion into a regular business meeting.

Shaun Gately informed the Commission that the Planning Specialist position had been filled.
The Commission was formerly informed that George McGregor's last meeting was this evening. He has taken a position closer to home.

7. **Adjournment**

Robin Lockwood **MOVED** to **ADJOURN** at 7:34 PM. Carl Bard seconded and the motion carried unanimously.

Jill Rocco
Recording Secretary

APPLICATION AND ATTACHEMENTS

1. PZC 2022-08

Borghesi
Building & Engineering Co., Inc.

March 9, 2022

Town of Vernon
14 Park Place
Vernon, Connecticut 06066

Attention: George McGregor, Town Planner

Dear George,

This letter is a response to your letter of 3/2/22. You requested in that letter the area (acreage) of the parcels which will have zone changes.

A. Parcel at #373 Talcotville Road (parcel 04-0004-0005A) total acreage is 1.425 acres in size and the acreage of the portion of the parcel we are requesting the zone change is 0.104 acres in size.

B. Parcel at #371 Talcotville Road (parcel 04-004-0006B) total acreage is 6.379± and the portion of the parcel that we are requesting a zone change is 1.069 acres.

Note that I have modified the first page of the application to reflect both parcels for a zone change.

We have modified the application to reflect both parcels for a zone change.

Thank you for your assistance on this.

Respectfully submitted,
Borghesi Building & Engineering Company, Inc.

Allan Borghesi
Chairman

ENGINEERS·DESIGNERS·CONTRACTORS
2155 East Main Street Torrington, CT 06790 860-482-7613 FAX 860-482-5082

TOWN OF VERNON PLANNING & ZONING COMMISSION (PZC) APPLICATION

(Revised March 2021)

The PZC may require additional information to be provided by the applicant in the course of reviewing the application and during the monitoring of the project. Provide all the information requested.

APPLICANT (S)

NAME: Allan Borghesi

COMPANY: Borghesi Building + Eng. Co Inc

ADDRESS: 2155 E Main Torrington Ct 06790

TELEPHONE: 8604827613 E-MAIL: Allan@Borghesibuilding.com

PROPERTY OWNER (S)

NAME: Expet LLC

ADDRESS: 25 Main St 4th Floor Hartford Ct 06106

TELEPHONE: 203-943-3739 EMAIL: Glennh@Synpower.Net

If the applicant is not the property owner, include a letter from the property owner authorizing the applicant to seek approval by the PZC, if no signature accompanies the application. (ZR Section 2.3)

PROPERTY

ADDRESS: 371 Talcottville Rd and 373 Talcottville Rd

ASSESSOR'S ID CODE: MAP # 4 BLOCK # ___ LOT/PARCEL # 6B and Map 4 Parcel 5A

LAND RECORD REFERENCE TO DEED DESCRIPTION Volume 2665 Page 306 for Both Parcels

DOES THIS SITE CONTAIN A WATERCOURSE AND/OR WETLANDS? (SEE THE INLAND WETLANDS MAP AND REGULATIONS)

__ NO X YES

X NO REGULATED ACTIVITY WILL BE DONE

___ REGULATED ACTIVITY WILL BE DONE

____ IWC APPLICATION HAS BEEN SUBMITTED

ZONING DISTRICT SED

IS THIS PROPERTY LOCATED WITHIN FIVE HUNDRED (500) FEET OF A MUNICIPAL BOUNDARY?

X NO

____ YES: _____

CHECK IF HISTORIC STATUS APPLIES: No

____ LOCATED IN HISTORIC DISTRICT: _____

____ INDIVIDUAL HISTORIC PROPERTY

PROJECT SUMMARY

Describe the project briefly in regard to the purpose of the project and the activities that will occur. Attach to this application a complete and detailed description with maps and documentation as required by the **"Town of Vernon Zoning Regulations"** and **"Town of Vernon Subdivision Regulations"**.

PURPOSE: Change Zone to C Zone

GENERAL ACTIVITIES: Develop Site to Construct Valvoline Oil Change

APPROVAL REQUESTED

____**SUBDIVISION OR RESUBDIVISION**

____ SUBDIVISION (SUB. SEC. 4, 5, 6)
____ RESUBDIVISION (SUB. SEC. 4, 5, 6)
____ MINOR MODIFICATION OF SUBDIVISION OR RESUBDIVISION (SUB. SEC. 4.6)
____ AMENDMENT OF SUBDIVISION REGULATIONS (SUB. SEC. II)

SEE SUBDIVISION REGULATIONS SEC. 4 FOR APPLICATION FEE SCHEDULES.

____**SOIL EROSION AND SEDIMENT CONTROL PLAN (ESCP)** (ZR SEC. 2.117; 18) (SUB. 6.14)

____**SITE PLAN OF DEVELOPMENT (POD)** (ZR SEC. 14)

____ POD APPROVAL (ZR SEC. 14.1.1.1; 14.1.2)
____ MODIFICATION OF AN APPROVED POD (ZR SEC. 14.1.1.1)
____ MINOR MODIFICATION OF A SITE POD (ZR SEC. 14.1.1.2)

____**SPECIAL PERMIT(S)** (ZR SECTION 17.3) SECTION:_____

____OTHER SPECIAL PERMIT(S). CITE ZR SECTION AND DESCRIBE ACTIVITY:

_____

X **ZONING:**

X SITE SPECIFIC CHANGE OF ZONING DISTRICT AND MAP (ZR SEC. 1.2; 1.3; 4)
____ AMENDMENT OF ZONING REGULATIONS (SEC. 1.2; 1.3; 4)

CERTIFICATION AND SIGNATURE

The applicant, undersigned, has reviewed the "Town of Vernon Planning and Zoning Regulations" and completed the application with complete and accurate information:

Property Owner, Applicant, or Applicant's Agent:

Allan Burghosi	Allan Burghosi	2/24/22
APPLICANT OR AGENT SIGNATURE	PRINTED NAME	DATE
Michael J Ferri	Michael J Ferri	2/24/22
OWNER'S SIGNATURE, IF DIFFERENT	PRINTED NAME	DATE

USE THIS FORM ONLY IF THE REQUIREMENTS OF
8.3(a)/22-a-42a(b) OF THE C.G.S. MUST BE MET

RECEIPT FOR DOCUMENTS SUBMITTED FOR PUBLIC INSPECTION

Applicant shall file a copy of any proposed regulation Amendment, Zone Change, or Wetlands Redesignation with the Town Clerk ten (10) days prior to the hearing as per **Section 8-3(a)** AND **(d)** AND **22a-42a (b)** of the General Statutes. Certification of the filing under these sections by the applicant must be presented at the public hearing.

TO: VERNON TOWN CLERK

FROM: Allan Burghes,

REFERENCE: Zone Change 371 Talcottville Rd

DATE: 2/24/22

The attached documents, consisting of:

Property Card; Zoning Map; Alta Survey (2)
Topographic Survey; Neighbors

Are being submitted for public inspection under CSG 8-3(a)/22a-42a (b).

Received: _____

Vernon Town Clerk Signature: _____

Date: _____

09-015H-0026B
SCF RC FUNDING IV LLC
902 CARNEGIE CENTER BLVD #520
PRINCETON NJ 08540

04-0004-008AR
VERNON TOWN OF
14 PARK PL
VERNON CT 06066

04-0004-0007A
VERNON TOWN OF
14 PARK PL
VERNON CT 06066-3291

04-0004-0006B
EXPCT LLC
25 MAIN ST 4TH FL
HARTFORD CT 06106

04-0004-008A5
TOWN OF VERNON
14 PARK PL
VERNON CT 06066

04-0004-0005A
EXPCT LLC
25 MAIN ST 4TH FL
HARTFORD CT 06106

09-015H-0026D
ALDI INC (CONNECTICUT)
C/O RYAN TAX COMPLIANCE SERVICES LLC
PO BOX 460049 DEPT 501
HOUSTON TX 77056

09-015H-0026A
BOSTONMANCHESTER LLC
715 BOYLSTON ST
BOSTON MA 02116

04-0004-008A3
PARK AT HOCKANUM CROSSING LLC
75 HOCKANUM BLVD OFC
VERNON CT 06066-4093

04-0004-0006A
MARCO ENTERPRISE MANAGEMENT LLLP
1440 CAXAMBAS CT
MARCO ISLAND FL 34145-6604

04-0004-008A6
VERNON SELF STORAGE CENTERS LLC
PO BOX 68
WILBRAHAM MA 01095

04-0004-008A4
TOWN OF VERNON
14 PARK PL
VERNON CT 06066

04-0004-008A7
CHAPMAN CLIFTON B
75 HOCKANUM BLVD
VERNON CT 06066

04-0004-00005
BRIAR KNOLL NCM LLC
2 ENTERPRISE DR STE 406
SHELTON CT 06484

EXPCT LLC
25 MAIN ST 4TH FL
HARTFORD, CT 06106
CENSUS TRACT: 530302
7/13/20 SALE INCLUDES 04-0004-0005A

eighborhood Number
12100
eighborhood Name
General Commercial
AXING DISTRICT INFORMATION

Jurisdiction Name	Town of Vernon
Area	146
Routing Number	6889

Transfer of Ownership

Owner	Consideration	Transfer Date	Deed Type	Deed Book	Page
JTF PROPERTIES LLC	1213469	07/17/2020	W	2665	306
FERRUOLO THOMASENE	0	01/15/2003	Q	1464	24
FERRUOLO JOHN A	0	01/15/2003	Q	1464	22
ASSET RECOVERY SYSTEMS IN	200000	01/21/1997	Q	1087	345
DHP ASSOCIATES	0	01/13/1997	W	1087	61
DHP ASSOCIATES	0	11/18/1988		728	148

ite Description
Topography

Public Utilities
Water, Sewer, Gas, Electric
Street or Road
Paved
Neighborhood

Zoning:
Industrial
Legal Acres:
7.1100

Valuation Record

Assessment Year		2011	2016	2018					
Reason for Change		2011 Reval	2016 Reval	2018					
Market	L	247330	228300	228300					
	I	0	0	0					
	T	247330	228300	228300					
70% Assessed/Use	L	173130	159810	159810					
	I	0	0	0					
	T	173130	159810	159810					

Land Size

Land Type	Rating, Soil ID - or - Actual Frontage	Acreage - or - Effective Frontage	Square Feet - or - Effective Depth	Influence Factor

Property Cards for 371 & 373 Talcottville Rd.

NOT ALL OF #371 TALLCOTTVILLE ROAD PROPERTY SHOWN

HOCKANUM BLVD

TAX ID 04-0004-0006B
#371 TALCOTTVILLE ROAD
N/F
EXPCT LLC
VOL.2665 – PG.306

S23°31'58"W
377.00'

ZONE SED

ZONE SED

ZONE PRD

MAP REF #1

PORTION OF
#371 TALCOTTVILLE ROAD
TO REMAIN ZONE SED
ZONE C
231,099± S.F. or 5.31± Ac

PORTION OF
#371 TALCOTTVILLE ROAD
TO BE CHANGED TO
ZONE C
46,579 S.F. or 1.069 Ac

PORTION OF
#373 TALCOTTVILLE ROAD
TO BE CHANGED TO
ZONE C
4,512 S.F. or 0.104 Ac

S77°34'57"E
90.82'

N06°28'07"W
304.35'

200.0'

C3

ZONE SED

ZONE PRD

TAX ID 04-0004-00005
#401 TALCOTTVILLE ROAD
N/F
BRIAR KNOLL NCM LLC
VOL.2467 – PG.268

MAINTENANCE, INGRESS AND EGRESS EASEMENT (Refer to Map Ref #1)

5/8" iron pin (found disturbed)

N26°22'03"E
200.00'

S08°30'10"W
74.71'

S77°34'57"E
89.58'

TAX ID 04-0004-0006B
#371 TALCOTTVILLE ROAD
N/F
EXPCT LLC
VOL.2665 – PG.306

ZONE C

S63°30'10"E
45.00'

200.0'

87.34'
S23°50'04"W

TAX ID 04-0004-0005A
#373 TALCOTTVILLE ROAD
N/F
EXPCT LLC
VOL.2665 – PG.306

S77°34'57"E
217.80'

TAX ID 04-0004-00005
#401 TALCOTTVILLE ROAD
N/F
BRIAR KNOLL NCM LLC
VOL.2467 – PG.268

ZONE PRD

TAX ID 04-0004-0006A
#367 TALCOTTVILLE ROAD
N/F
MARCO ENTERPRISE
MANAGEMENT LLLP
VOL.2264 – PG.32

N06°28'07"W
200.12'

UTILITY RIGHT OF WAY & DRAINAGE EASEMENT (Refer to Map Ref #1)

Existing Building #373

CONCRETE

AREA RESERVED FOR INGRESS & EGRESS (Refer to Map Ref #1)

ENTRANCE LINE (SHOWN ON MAP REF #2)

140.97'

S63°30'10"E
1.35'

ZONE SED

ZONE C

116.91'
S26°22'03"W

5/8" iron pin (found disturbed)

268.95'
N26°22'03"E

Monument (found)

Monument (found)

C1

C2

LOOP DETECTOR EASEMENT (Refer to Map Ref #1)

TALCOTTVILLE ROAD – a.k.a. – CONNECTICUT ROUTE 83

200.0'

TAX ID 09-015H-0026B
#350 TALCOTTVILLE ROAD
N/F
SCF RC FUNDING IV LLC

ZONE PC

TAX ID 09-015H-0026D
#360 TALCOTTVILLE ROAD
N/F
ALDI INC (CONNECTICUT)

TAX ID 09-015H-0026A
#380 TALCOTTVILLE ROAD
N/F
BOSTONMANCHESTER

ZONE PC

TAX ID 09-015H-00026
#400 TALCOTTVILLE ROAD
N/F
ROUTE 83 LLC

ZONE PC

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

L E G E N D

STONE WALL	
SANITARY SEWER	S S
ELECTRIC LINE	E E
PROPANE LINE	G G
FENCE	x x
STORM SEWER	
CONTOUR LINE	100
FOLIAGE LINE	
IRON PIN	
SURVEY MONUMENT	
DRILL HOLE	
CURB CATCHBASIN	
CURBLESS CATCHBASIN	
UTILITY POLE	
UTILITY POLE WITH GUY	
WATER GATE VALVE	
GAS GATE VALVE	
HYDRANT	
SANITARY MANHOLE	
YARD DRAIN	
LIGHT STAND	

MAP REFERENCES :

1. ``ALTA/NSPS LAND TITLE SURVEY - JTF PROPERTIES, LLC - 371 & 373 TALCOTTVILLE ROAD - LOTS 5A & 6B, MAP 4 - TOWN OF VERNON, TOLLAND COUNTY - STATE OF CONNECTICUT'', scale 1" = 60', dated 12-13-2019, Dwg. No. 1 of 2 and prepared by Controlpoint Associates, Inc.

2. ``ALTA/NSPS LAND TITLE SURVEY - JTF PROPERTIES, LLC - 371 & 373 TALCOTTVILLE ROAD - LOTS 5A & 6B, MAP 4 - TOWN OF VERNON, TOLLAND COUNTY - STATE OF CONNECTICUT'', scale 1" = 20', dated 12-13-2019, Dwg. No. 2 of 2 and prepared by Controlpoint Associates, Inc.

3. ``IMPROVEMENT LOCATION SURVEY - PREPARED FOR - MR. SPARKLE CAR WASH - 373 TALCOTTVILLE ROAD - VERNON, CONNECTICUT'', scale 1" = 20', dated 1-02-04 and prepared by Gardner & Peterson Associates.

4. ``THE SHOPPES AT VERNON VALLEY - PHASE 2 - DAYCARE & RETAIL DEVELOPMENT - 370-380 TALCOTTVILLE ROAD (ROUTE83) - VERNON, CONNECTICUT - SITE UTILITY PLAN'', scale 1" = 40', dated 05/23/08 and prepared by BL Companies.

5. ``TOWN OF VERNON - CONTRACT NO. 11 - SANITARY SEWER - STA 20+83.1 TO STA 31+23 - 0+0S TO 1+20.7S - 0+0E TO 3+54.1E - TALCOTTVILLE ROAD'', scale Hor.1" = 40', Vert1"=4', dated 8-21-73 and prepared by A.R. Lombardi Associates, Inc, Consulting Engineers,

NOTES:

1. THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-20 AND THE ``STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT'' AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INCORPORATED ON SEPTEMBER 26, 1996.

2. TYPE OF SURVEY = IMPROVEMENT LOCATION SURVEY

3. BOUNDARY DETERMINATION CATEGORY = DEPENDENT RE-SURVEY

4. OWNERS OF RECORD - JTF PROPERTIES LLC (Vol.1464 - Pg.24 & Vol.1977 - Pg.146))

5. PROPERTY LINES, EASEMENTS AND OTHER TITLE NOTES DEPICTED HEREON WERE TAKEN FROM MAP REFERENCES #1 & #2 AND ARE NOT THE PROPERTY/BOUNDARY OPINION OF THIS SURVEYOR.

6. UNDERGROUND UTILITIES, STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROLE TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS ARE APPROXIMATE AND OTHER SUCH FEATURES MAY EXIST UNKNOWN TO DUFOUR SURVEYING ASSOCIATES. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455

CURVE TABLE					
CURVE	RADIUS	LENGTH	DELTA ANGLE	CHORD BEARING	CHORD
C1	15666.12	126.22	0°27'42"	S25°22'37"W	126.22
C2	15666.12	207.77	0°45'36"	S25°59'15"W	207.77
C3	15966.12	191.42	0°41'13"	S25°27'33"W	191.41

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON. THIS MAP AND SURVEY WERE PREPARED IN ACCORDANCE WITH THE STANDARDS OF A CLASS A-2 SURVEY AS DEFINED IN THE CODE OF PRACTICE FOR STANDARDS OF ACCURACY OF SURVEYS AND MAPS, ADOPTED SEPT. 26, 1996 AS AMENDED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INCORPORATED.

CARMINE J. MATRASCIA - L.S. #70219
NOT VALID WITHOUT EMBOSSED SEAL

DUFOUR SURVEYING LLC

PROPOSED ZONE CHANGE MAP

PREPARED FOR: BORGHESI BUILDING & ENGINEERING COMPANY,INC.

PORTION OF #371 & #373 TALCOTTVILLE ROAD, VERNON, CONNECTICUT

SCALE: 1"=40' | APPROVED: CARMINE J. MATRASCIA - L.S. #70219

DATE: 03-07-2022 | JOB NO.: 20-59 | FILE NO.: \20-59

DUFOUR SURVEYING LLC
575 NORTH MAIN STREET
BRISTOL, CONNECTICUT
860-314-0502 860-738-0222

371 TALCOTTVILLE ROAD

A CERTAIN PIECE OR PARCEL OF LAND WITH THE IMPROVEMENTS THEREON STANDING LOCATED IN THE TOWN OF VERNON, COUNTY OF TOLLAND AND STATE OF CONNECTICUT ON THE WESTERLY SIDE OF TALCOTTVILLE AVENUE (CT ROUTE 83), AND BEING BOUNDED AND DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT IN THE WESTERLY LINE OF TALCOTTVILLE AVENUE (ROAD) WHICH POINT MARKS THE NORTHEAST CORNER OF LAND NOW OR FORMERLY OF LIEBMAN APARTMENTS AND WHICH POINT MARKS THE SOUTHEAST CORNER OF THE PREMISES HEREIN DESCRIBED; THENCE RUNNING N 66° 28' 02" W ALONG LAND NOW OR FORMERLY OF LIEBMAN APARTMENTS, 603.37 FEET TO A POINT; THENCE RUNNING S 23° 31' 58" W ALONG LAND NOW OR FORMERLY OF LIEBMAN APARTMENTS, 377.00 FEET TO A POINT; THENCE RUNNING N 66° 28' 02" W ALONG LAND NOW OR FORMERLY OF VERNON AUTO SUPPLY, INC., 463.77 FEET TO THE CENTER LINE OF THE HOCKANUM RIVER, THENCE RUNNING IN A GENERALLY NORTHEASTERN DIRECTION ALONG THE CENTER LINE OF THE HOCKANUM RIVER TO LAND NOW OR FORMERLY ESTATE OF LILLIAN S. THRALL; THENCE RUNNING SOUTHEASTERLY ALONG THE SOUTHERLY LINE OF LAND NOW OR FORMERLY OF SAID ESTATE OF LILLIAN S. THRALL TO AN IRON PIN MARKING THE SOUTHWEST CORNER OF LAND NOW OR FORMERLY OF JOHN A. FERRUOLO; THENCE CONTINUING S 77° 34' 57" E ALONG LAND NOW OR FORMERLY OF JOHN A. FERRUOLO, 218.02 FEET TO THE WESTERLY LINE OF TALCOTTVILLE AVENUE; THENCE SOUTHERLY ALONG THE WESTERLY LINE OF TALCOTTVILLE AVENUE, 248.20 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPTING THEREFROM "PARCEL B" AREA = 19,685 SQ. FT. = 0.45 ACRES SHOWN ON MAP NO. 5212 ON FILE IN THE VERNON TOWN CLERK'S OFFICE.

373 TALCOTTVILLE ROAD

A CERTAIN PIECE OR PARCEL OF LAND SITUATED IN THE TOWN OF VERNON, COUNTY OF TOLLAND AND STATE OF CONNECTICUT, BEING THE COMBINATION OF THAT PARCEL DESIGNATED AS "PARCEL "A" AREA = 42,275 SQ. FT. = 0.97 ACRES" AND THAT PARCEL DESIGNATED AT "PARCEL "B" AREA= 19,685 SQ. FT. = 0.45 ACRES" BOTH ON A CERTAIN MAP OR PLAN ENTITLED "IMPROVEMENT LOCATION SURVEY PREPARED FOR JTF PROPERTIES LLC 373 TALCOTTVILLE ROAD, VERNON, CONNECTICUT GARDNER & PETERSON ASSOCIATES 178 HARTFORD TURNPIKE, TOLLAND, CONNECTICUT, PROFESSIONAL ENGINEERS LAND SURVEYORS BY J.D.D. SCALE 1"=20' DATE 3/15/04 SHEET NO. 1 OF 1 MAP NO. 5399 AB", WHICH MAP IS ON FILE IN THE VERNON LAND RECORDS.

SAID PARCEL IS MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A IRON PIN ON THE WESTERLY LINE OF TALCOTTVILLE ROAD SAID POINT BEING THE SOUTHEASTERLY CORNER OF LAND NOW OR FORMERLY OF GPT-BRIAR KNOLL, LLC;

THENCE S 26° 22' 03" W, FOR A DISTANCE OF 324.66 FEET ALONG SAID WESTERLY LINE OF TALCOTTVILLE ROAD TO A POINT;

THENCE N 63° 03' 01" W, FOR A DISTANCE OF 186.00 FEET ALONG OTHER LAND OF JTF PROPERTIES, LLC TO A POINT;

THENCE N 06° 30' 10" E, FOR A DISTANCE OF 74.71 FEET ALONG OTHER LAND OF SAID JTF PROPERTIES, LLC TO A POINT;

THENCE N 26° 22' 03" E, FOR A DISTANCE OF 200.00 FEET ALONG LAND NOW OR FORMERLY OF SAID GPT-BRIAR KNOLL, LLC TO A POINT;

THENCE S 77° 34' 57" E, FOR A DISTANCE OF 217.80 FEET ALONG LAND NOW OR FORMERLY OF SAID GPT-BRIAR KNOLL, LLC TO THE POINT AND PLACE OF BEGINNING.

TOGETHER WITH THE NONEXCLUSIVE RIGHT TO DRAINAGE, INGRESS, AND EGRESS OVER THE PARCEL DESIGNATED AS "EASEMENT IN FAVOR OF MR. SPARKLE CAR WASH FOR THE MAINTENANCE OF THE RECHARGE AREA, DRAINAGE IMPROVEMENTS AND FOR INGRESS AND EGRESS. AREA = 5,051 SQ. FT." ON SAID MAP.

TOGETHER WITH A NONEXCLUSIVE EASEMENT FOR DRAINAGE, INGRESS AND EGRESS OVER THE PARCEL DESIGNATED AS "20' WIDE EASEMENT FOR DRAINAGE PURPOSES IN FAVOR OF JOHN A. FERRULO EXTENDING WESTERLY TO THE HOCKANUM RIVER VOL. 149 PAGE 317" ON SAID MAP.

LEGEND

— — 124 — —	EXISTING CONTOUR
— — 125 — —	
× 123.45	EXISTING SPOT ELEVATION
× TC 123.45	EXISTING TOP OF CURB ELEVATION
× G 122.95	EXISTING GUTTER ELEVATION
× TW 123.45	EXISTING TOP OF WALL ELEVATION
× BW 122.95	EXISTING BOTTOM OF WALL ELEVATION
WV	WATER VALVE
GV	GAS VALVE
GM	GAS METER
UP GW	UTILITY POLE
	GUY WIRE
	AREA LIGHT
	SIGN
	METAL GUIDE RAIL
	PAINTED ARROWS
DMH	DRAINAGE/STORM MANHOLE
SMH	SANITARY/SEWER MANHOLE
MH	UNKNOWN MANHOLE
CB	CATCH BASIN OR INLET
	TREE & TRUNK SIZE
10	PARKING SPACE COUNT
	LIGHT
W	WELL
#	TITLE REPORT EXCEPTION
GRT	GRATE ELEVATION
WGR	WOODEN GUARD RAIL
CLF	CHAIN LINK FENCE
DC	DEPRESSED CURB
EOC	EDGE OF CONCRETE
EOP	EDGE OF PAVEMENT
BLDG	BUILDING
BFPA	BUILDING FOOTPRINT AREA
SWL	SOLID WHITE LINE
(TYP)	TYPICAL

THE STATE OF CONNECTICUT REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.

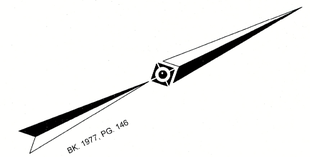
ZONING INFORMATION
C (COMMERCIAL) DISTRICT
SOURCE : TOWN OF VERNON CONNECTICUT ZONING REGULATIONS, DATED MAY 1, 2013

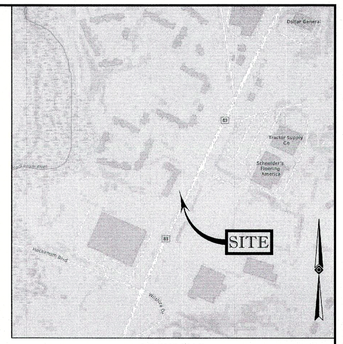
ITEMS	REQUIRED
MIN LOT AREA	22,000 SF
MIN LOT WIDTH	100'
MIN FRONT YARD	50'
MIN REAR YARD	50'
MIN SIDE YARD	20'

ZONING INFORMATION
SED (SPECIAL ECONOMIC DEVELOPMENT) DISTRICT
SOURCE : TOWN OF VERNON CONNECTICUT ZONING REGULATIONS, DATED MAY 1, 2013

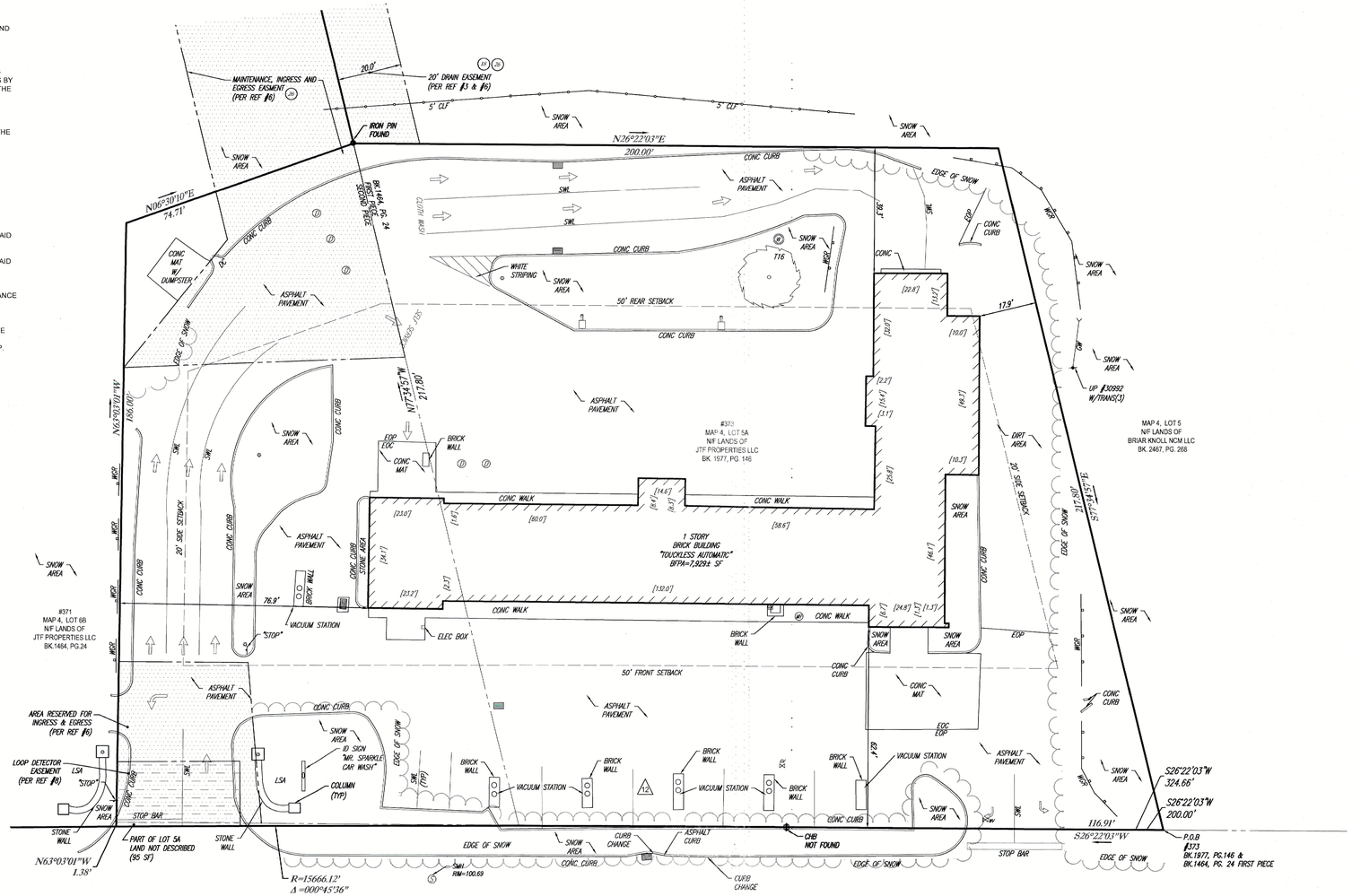
ITEMS	REQUIRED
MIN LOT AREA	1 AC
MIN LOT WIDTH	150'
MIN FRONT YARD	50'
MIN REAR YARD	30'
MIN SIDE YARD	30'

NOTE: ZONING CRITERIA IDENTIFIED HEREON ARE BASED UPON PRELIMINARY RESEARCH AND PRESENTED FOR REFERENCE ONLY. SAME MUST BE CONFIRMED WITH LOCAL ZONING OFFICIAL AND LEGAL COUNSEL TO CONFIRM VALIDITY.





LOCUS MAP
©2013 ESRI WORLD STREET MAPS
NOT TO SCALE



TALCOTTVILLE ROAD
(AKA CONNECTICUT ROUTE 83)
(ASPHALT ROADWAY)
⟺ TWO WAY TRAFFIC

GRAPHIC SCALE
20' 0 10' 20' 40' 80'
(IN FEET)
1 inch = 20' ft.

NOTES:

1. THIS IS A BOUNDARY AND TOPOGRAPHIC SURVEY PREPARED IN ACCORDANCE WITH THE STANDARDS OF A CLASS A-2 SURVEY AS DEFINED IN THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTION 20-300B, EFFECTIVE DATE JUNE 21, 1996. THIS SURVEY IS ALSO PREPARED IN ACCORDANCE WITH THE MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT, ADOPTED ON SEPTEMBER 26, 1996, BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS INC., THE BOUNDARY LINES SHOWN HEREON ARE BASED UPON A RESURVEY OF THE SUBJECT PROPERTY.

   PROPERTY KNOWN AS LOTS 5A & 6B AS SHOWN ON THE TOWN OF VERNON, TOLLAND COUNTY, STATE OF CONNECTICUT, MAP NO. 4.
2. LOT 5A AREA = 62,056 SQUARE FEET OR 1.425 ACRES (INCLUDES 95 SF OF LAND NOT DESCRIBED).
   LOT 6B AREA = 281,706 SQUARE FEET OR 6.467 ACRES±.
3. THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON.
4. BY GRAPHIC PLOTTING ONLY PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.) PER REF. #2.
5. THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.
6. THIS SURVEY WAS PERFORMED DURING A PERIOD WHEN THE GROUND WAS SNOW COVERED. UTILITY STRUCTURES AND SITE FEATURES HAVE BEEN LOCATED AND IDENTIFIED WHICH WERE VISIBLE ON THE DATE OF THE FIELD SURVEY. REMOVAL OF THIS NOTE FROM THE SURVEY WILL REQUIRE A LATER SITE VISIT AFTER THE SNOW HAS MELTED.
7. THIS SURVEY WAS PREPARED WITH REFERENCE TO A TITLE REPORT PREPARED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY, HAVING A COMMITMENT NO. BLC-26504, WITH AN EFFECTIVE DATE OF OCTOBER 7, 2019, WHERE THE FOLLOWING SURVEY RELATED EXCEPTIONS APPEAR IN SCHEDULE B - SECTION 2:

   GENERAL EXCEPTIONS 1 THRU 11, 13, AND 20 THRU 25 ARE NOT SURVEY RELATED AND HAVE NOT BEEN COMMENTED ON AS A PART OF THIS SURVEY.

   (12) RIGHTS OF OTHERS IN AND TO HOCKANUM RIVER. -**RIVER SHOWN.**

   (14) A DRAINAGE EASEMENT IN FAVOR OF THE STATE OF CONNECTICUT DATED AUGUST 26, 1963 AND RECORDED IN VOLUME 139 AT PAGE 527 OF THE VERNON LAND RECORDS. -**50' WIDE EASEMENT SHOWN.**

   (15) A DRAINAGE EASEMENT IN FAVOR OF ALEXANDER JARVIS DATED JUNE 15, 1964 AND RECORDED IN VOLUME 146 AT PAGE 629 OF THE VERNON LAND RECORDS. -**50' WIDE EASEMENT SHOWN.**

   (16) A DRAINAGE EASEMENT IN FAVOR OF JARVIS ENTERPRISES, INC. DATED JUNE 16, 1964 AND RECORDED IN VOLUME 146 AT PAGE 631 OF THE VERNON LAND RECORDS. -**50' WIDE EASEMENT SHOWN.**

   (17) A RIGHT-OF-WAY AND DRAINAGE EASEMENT AS RESERVED IN A DEED DATED JULY 7, 1966 AND RECORDED IN VOLUME 160 AT PAGE 228 OF THE VERNON LAND RECORDS. -**50' WIDE EASEMENT SHOWN.**

   (18) EASEMENT SET FORTH IN A DEED DATED MARCH 19, 1965 AND RECORDED IN VOLUME 149 AT PAGE 317 OF THE VERNON LAND RECORDS -**20' DRAINAGE EASEMENT SHOWN.**

   (19) EASEMENT IN FAVOR OF D.H.P. ASSOCIATES DATED SEPTEMBER 22, 1989 AND RECORDED SEPTEMBER 22, 1989 IN VOLUME 768 AT PAGE 98 OF THE VERNON LAND RECORDS -**50' WIDE EASEMENT SHOWN.**

   (28) EASEMENT AS SET FORTH IN A DEED DATED DECEMBER 19, 2007 AND RECORDED IN VOLUME 1977 AT PAGE 146 OF THE VERNON LAND RECORDS.-**EASEMENTS SHOWN.**

REFERENCES:

1. THE TAX ASSESSOR'S MAP OF VERNON, TOLLAND COUNTY, MAP 4.
2. MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, TOWN OF VERNON, CONNECTICUT, TOLLAND COUNTY,ONLY PANEL PRINTED," COMMUNITY-PANEL NUMBER 090131 0005 C, MAP REVISED: AUGUST 9, 1999.
3. MAP ENTITLED "BOUNDARY MAP, PROPOSED BRIAR KNOLL APARTMENTS", PREPARED BY FUSS & O'NEILL CONSULTING ENGINEERS, DATED JANUARY 17, 1966, REVISED THRU JANUARY, 20, 1986, FILED IN THE TOWN CLERK'S OFFICE AS PLAN NO. 2089.
4. MAP ENTITLED "PLAN PREPARED FOR SHEPARD PLUMBING CONNECTICUT RTE. 83 VERNON, CONN.", PREPARED BY AR LOMBARDI ASSOCIATES, INC., DATED AUGUST 1989, FILED IN THE TOWN CLERK'S OFFICE AS PLAN NO. 2782.
5. MAP ENTITLED "RIGHT OF WAY SURVEY STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION, RIGHT OF WAY MAP, TOWN OF VERNON, TALCOTTVILLE ROAD FROM PITKIN ROAD NORTHEASTERLY TO WINDSORVILLE ROAD", PREPARED BY AND FILED WITH THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION, APPROVED DECEMBER 1994, AND FILED AS PLAN NO. 146-11 AND FILE NO. 146-01105- RW.
6. MAP ENTITLED "IMPROVEMENT LOCATION SURVEY PREPARED FOR MR. SPARKLE CAR WASH", PREPARED BY GARDNER & PETERSON ASSOCIATES, DATED JANUARY 2, 2004, FILED IN THE TOWN CLERK'S OFFICE AS PLAN NO. 5399 AB.
7. MAP ENTITLED "SITE PLAN PREPARED FOR MR. SPARKLE CAR WASH", PREPARED BY GARDNER & PETERSON ASSOCIATES, DATED JUNE 4, 1997, FILED IN THE TOWN CLERK'S OFFICE AS PLAN NO. 5399.
8. MAP ENTITLED " TOWN OF VERNON MAP SHOWING EASEMENT ACQUIRED FROM JOHN A. FERRUOLO BY THE STATE OF CONNECTICUT ROUTE 83/WILSHIRE RD. REALIGNMENT", PREPARED BY JAMES F. BYRNES, JR. P.E.

Sent To Town

THIS SURVEY IS CERTIFIED TO:
JTF PROPERTIES, LLC
COMMONWEALTH LAND TITLE INSURANCE COMPANY
EXPCT, LLC
PEOPLE'S UNITED BANK, NATIONAL ASSOCIATION

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT WAS BASED WERE MADE IN ACCORDANCE WITH THE "2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS", JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 4, 6(B), 7(A), 7(B)(1), 8, 9, 11, 13 & 20 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON DECEMBER 12, 2019.

NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH RAISED IMPRESSION OR STAMPED WITH A BLUE INK SEAL

WILLIAM T. WHIMPLE — DATE
CONNECTICUT PROFESSIONAL LAND SURVEYOR #70290

FIELD DATE	12-6-2019
FIELD BOOK NO.	19-22
FIELD BOOK PG.	13
FIELD CREW	J.D.O.
DRAWN	A.J.D.
REVIEWED:	J.R.Z.
APPROVED:	W.T.W.
DATE	12-13-2019
SCALE	1"=20'
FILE NO.	03-190332
DWG. NO.	2 OF 2

ALTA/NSPS LAND TITLE SURVEY
JTF PROPERTIES, LLC
371 & 373 TALCOTTVILLE ROAD
LOTS 5A & 6B, MAP 4
TOWN OF VERNON, TOLLAND COUNTY
STATE OF CONNECTICUT

CONTROL POINT ASSOCIATES, INC.
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
508.948.3000 - 508.948.3003 FAX
ALBANY, NY 5182175910
CHALFONT, PA 2157129900
MANHATTAN, NY 6467800411
MT LAUREL, NJ 6098573999
WARREN, NJ 9086680099

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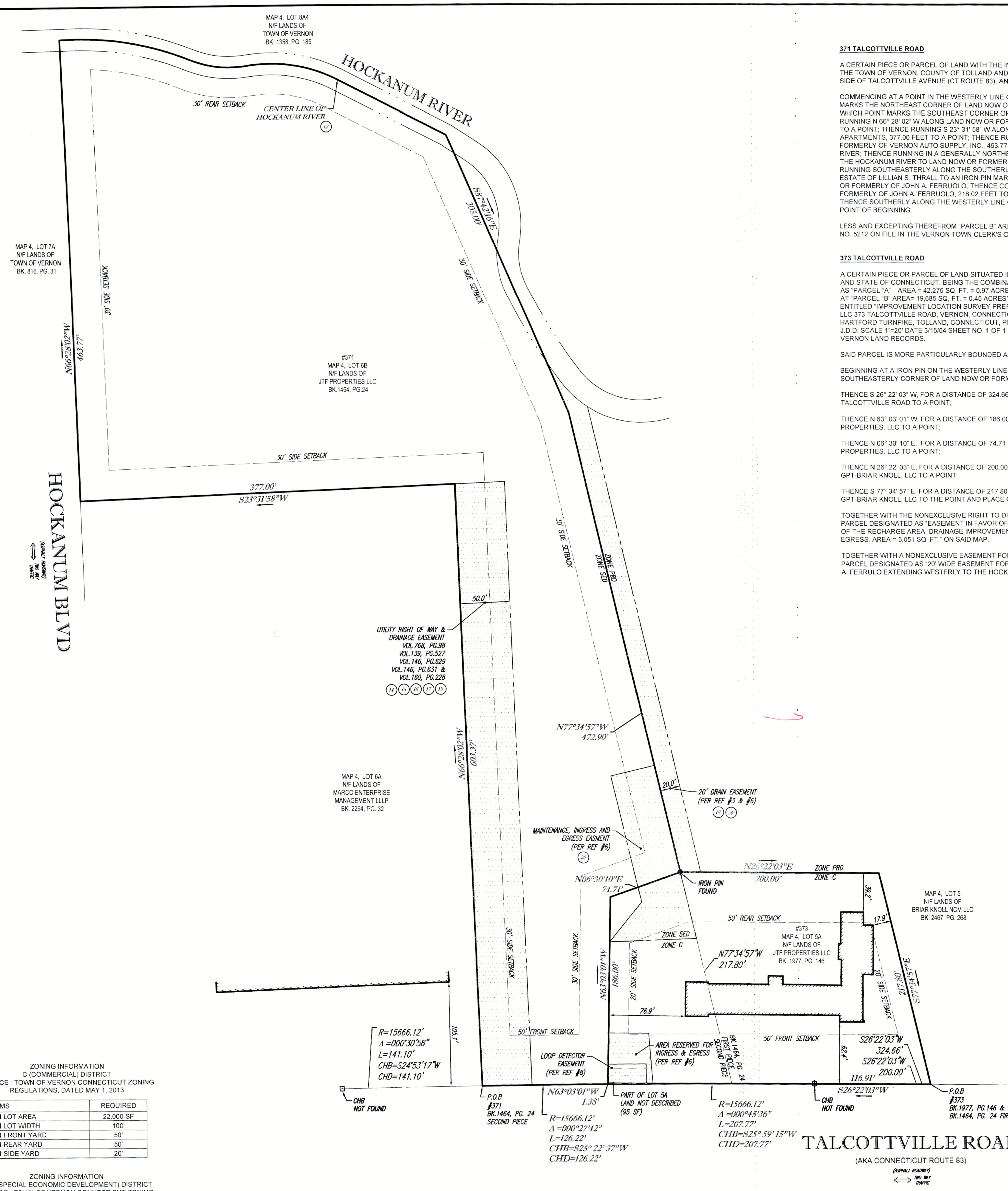

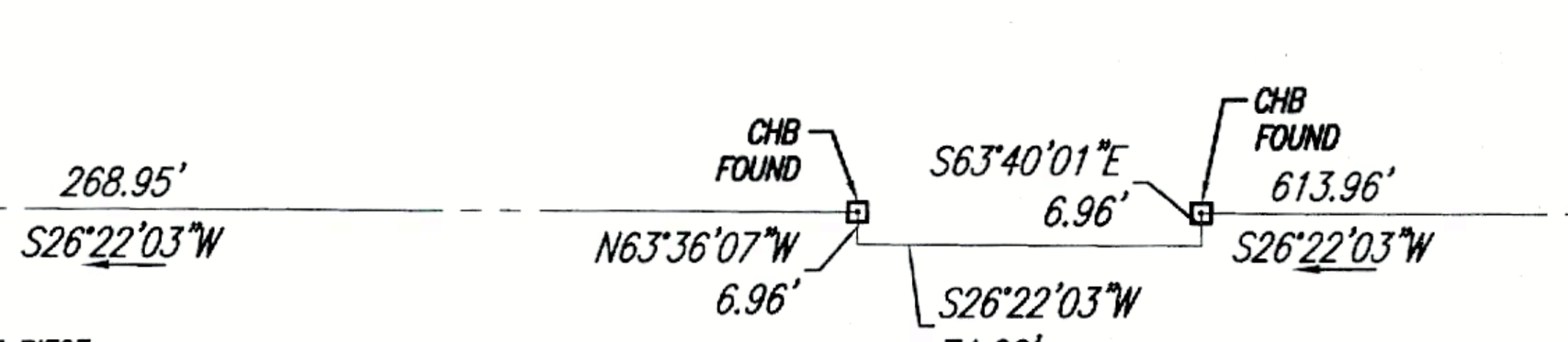

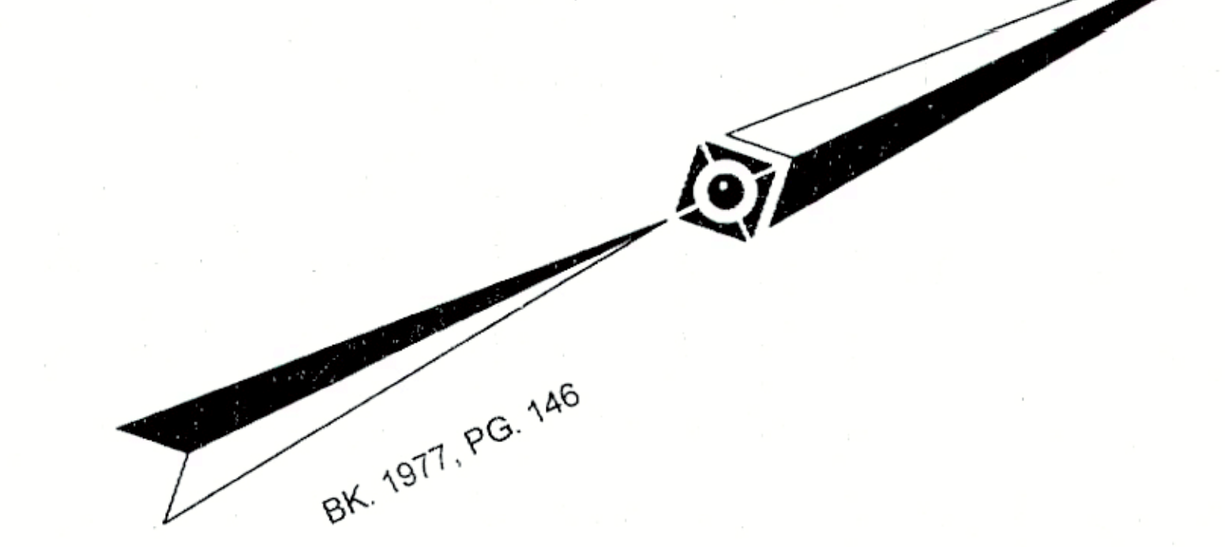

371 TALCOTTVILLE ROAD

A CERTAIN PIECE OR PARCEL OF LAND WITH THE IMPROVEMENTS THEREON STANDING LOCATED IN THE TOWN OF VERNON, COUNTY OF TOLLAND AND STATE OF CONNECTICUT ON THE WESTERLY SIDE OF TALCOTTVILLE AVENUE (CT ROUTE 83), AND BEING BOUNDED AND DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT IN THE WESTERLY LINE OF TALCOTTVILLE AVENUE (ROAD) WHICH POINT MARKS THE NORTHEAST CORNER OF LAND NOW OR FORMERLY OF LIEBMAN APARTMENTS AND WHICH POINT MARKS THE SOUTHEAST CORNER OF THE PREMISES HEREIN DESCRIBED; THENCE RUNNING N 66° 28' 02" W ALONG LAND NOW OR FORMERLY OF LIEBMAN APARTMENTS, 603.37 FEET TO A POINT; THENCE RUNNING S 23° 31' 58" W ALONG LAND NOW OR FORMERLY OF LIEBMAN APARTMENTS, 377.00 FEET TO A POINT; THENCE RUNNING N 66° 28' 02" W ALONG LAND NOW OR FORMERLY OF VERNON AUTO SUPPLY, INC., 463.77 FEET TO THE CENTER LINE OF THE HOCKANUM RIVER; THENCE RUNNING IN A GENERALLY NORTHEASTERN DIRECTION ALONG THE CENTER LINE OF THE HOCKANUM RIVER TO LAND NOW OR FORMERLY ESTATE OF LILLIAN S. THRALL; THENCE RUNNING SOUTHEASTERLY ALONG THE SOUTHERLY LINE OF LAND NOW OR FORMERLY OF SAID ESTATE OF LILLIAN S. THRALL TO AN IRON PIN MARKING THE SOUTHWEST CORNER OF LAND NOW OR FORMERLY OF JOHN A. FERRUOLO; THENCE CONTINUING S 77° 34' 57" E ALONG LAND NOW OR FORMERLY OF JOHN A. FERRUOLO, 218.02 FEET TO THE WESTERLY LINE OF TALCOTTVILLE AVENUE; THENCE SOUTHERLY ALONG THE WESTERLY LINE OF TALCOTTVILLE AVENUE, 248.20 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPTING THEREFROM "PARCEL B" AREA = 19,685 SQ. FT. = 0.45 ACRES SHOWN ON MAP NO. 5212 ON FILE IN THE VERNON TOWN CLERK'S OFFICE.

373 TALCOTTVILLE ROAD

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THENCE N 63° 03' 01" W, FOR A DISTANCE OF 186.00 FEET ALONG OTHER LAND OF JTF PROPERTIES, LLC TO A POINT;

THENCE N 06° 30' 10" E, FOR A DISTANCE OF 74.71 FEET ALONG OTHER LAND OF SAID JTF PROPERTIES, LLC TO A POINT;

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TOGETHER WITH THE NONEXCLUSIVE RIGHT TO DRAINAGE, INGRESS, AND EGRESS OVER THE PARCEL DESIGNATED AS "EASEMENT IN FAVOR OF MR. SPARKLE CAR WASH FOR THE MAINTENANCE OF THE RECHARGE AREA, DRAINAGE IMPROVEMENTS AND FOR INGRESS AND EGRESS. AREA = 5,051 SQ. FT." ON SAID MAP.

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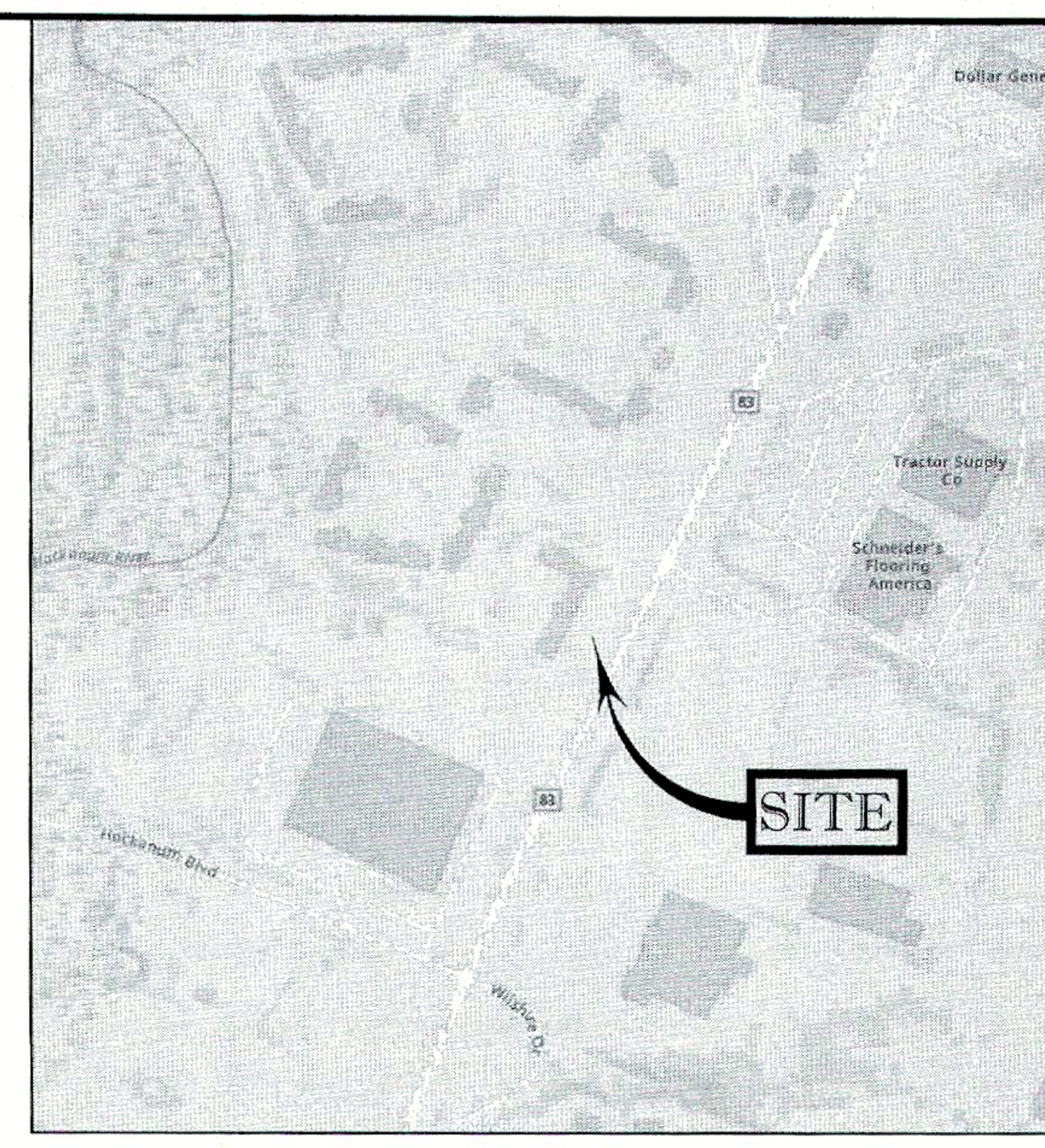

LOCUS MAP
©2013 ESRI WORLD STREET MAPS
NOT TO SCALE

NOTES:

1. THIS IS A BOUNDARY AND TOPOGRAPHIC SURVEY PREPARED IN ACCORDANCE WITH THE STANDARDS OF A CLASS A-2 SURVEY AS DEFINED IN THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTION 20-300B, EFFECTIVE DATE JUNE 21, 1996. THIS SURVEY IS ALSO PREPARED IN ACCORDANCE WITH THE MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT, ADOPTED ON SEPTEMBER 26, 1996, BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS INC., THE BOUNDARY LINES SHOWN HEREON ARE BASED UPON A RESURVEY OF THE SUBJECT PROPERTY.

   PROPERTY KNOWN AS LOTS 5A & 6B AS SHOWN ON THE TOWN OF VERNON, TOLLAND COUNTY, STATE OF CONNECTICUT; MAP NO. 4.

2. LOT 5A AREA = 62,056 SQUARE FEET OR 1.425 ACRES (INCLUDES 95 SF OF LAND NOT DESCRIBED).
   LOT 6B AREA = 281,706 SQUARE FEET OR 6.467 ACRES±.

3. THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON.

4. BY GRAPHIC PLOTTING ONLY PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.) PER REF. #2..

5. THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.

6. THIS SURVEY WAS PERFORMED DURING A PERIOD WHEN THE GROUND WAS SNOW COVERED. UTILITY STRUCTURES AND SITE FEATURES HAVE BEEN LOCATED AND IDENTIFIED WHICH WERE VISIBLE ON THE DATE OF THE FIELD SURVEY. REMOVAL OF THIS NOTE FROM THE SURVEY WILL REQUIRE A LATER SITE VISIT AFTER THE SNOW HAS MELTED.

7. THIS SURVEY WAS PREPARED WITH REFERENCE TO A TITLE REPORT PREPARED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY, HAVING A COMMITMENT NO. BLC-26504, WITH AN EFFECTIVE DATE OF OCTOBER 7, 2019, WHERE THE FOLLOWING SURVEY RELATED EXCEPTIONS APPEAR IN SCHEDULE B - SECTION 2:

   GENERAL EXCEPTIONS 1 THRU 11, 13, AND 20 THRU 25 ARE NOT SURVEY RELATED AND HAVE NOT BEEN COMMENTED ON AS A PART OF THIS SURVEY.

   (12) RIGHTS OF OTHERS IN AND TO HOCKANUM RIVER. **-RIVER SHOWN.**

   (14) A DRAINAGE EASEMENT IN FAVOR OF THE STATE OF CONNECTICUT DATED AUGUST 26, 1963 AND RECORDED IN VOLUME 139 AT PAGE 527 OF THE VERNON LAND RECORDS. **-50' WIDE EASEMENT SHOWN.**

   (15) A DRAINAGE EASEMENT IN FAVOR OF ALEXANDER JARVIS DATED JUNE 15, 1964 AND RECORDED IN VOLUME 146 AT PAGE 629 OF THE VERNON LAND RECORDS. **-50' WIDE EASEMENT SHOWN.**

   (16) A DRAINAGE EASEMENT IN FAVOR OF JARVIS ENTERPRISES, INC. DATED JUNE 16, 1964 AND RECORDED IN VOLUME 146 AT PAGE 631 OF THE VERNON LAND RECORDS. **-50' WIDE EASEMENT SHOWN.**

   (17) A RIGHT-OF-WAY AND DRAINAGE EASEMENT AS RESERVED IN A DEED DATED JULY 7, 1966 AND RECORDED IN VOLUME 160 AT PAGE 228 OF THE VERNON LAND RECORDS.**-50' WIDE EASEMENT SHOWN.**

   (18) EASEMENT SET FORTH IN A DEED DATED MARCH 19, 1965 AND RECORDED IN VOLUME 149 AT PAGE 317 OF THE VERNON LAND RECORDS.**-20' DRAINAGE EASEMENT SHOWN.**

   (19) EASEMENT IN FAVOR OF D.H.P. ASSOCIATES DATED SEPTEMBER 22, 1989 AND RECORDED SEPTEMBER 22, 1989 IN VOLUME 768 AT PAGE 98 OF THE VERNON LAND RECORDS.**-50' WIDE EASEMENT SHOWN.**

   (26) EASEMENT AS SET FORTH IN A DEED DATED DECEMBER 19, 2007 AND RECORDED IN VOLUME 1977 AT PAGE 146 OF THE VERNON LAND RECORDS.**-EASEMENTS SHOWN.**

REFERENCES:

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2. MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, TOWN OF VERNON, CONNECTICUT, TOLLAND COUNTY,ONLY PANEL PRINTED," COMMUNITY-PANEL NUMBER 090131 0005 C, MAP REVISED: AUGUST 9, 1999.
3. MAP ENTITLED "BOUNDARY MAP, PROPOSED BRIAR KNOLL APARTMENTS", PREPARED BY FUSS & O'NEILL CONSULTING ENGINEERS, DATED JANUARY 17, 1966, REVISED THRU JANUARY, 20, 1986, FILED IN THE TOWN CLERK'S OFFICE AS PLAN NO. 2089.
4. MAP ENTITLED "PLAN PREPARED FOR SHEPARD PLUMBING CONNECTICUT RTE. 83 VERNON, CONN.", PREPARED BY AR LOMBARDI ASSOCIATES, INC., DATED AUGUST 1989, FILED IN THE TOWN CLERK'S OFFICE AS PLAN NO. 2782.
5. MAP ENTITLED "RIGHT OF WAY SURVEY STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION, RIGHT OF WAY MAP, TOWN OF VERNON, TALCOTTVILLE ROAD FROM PITKIN ROAD NORTHEASTERLY TO WINDSORVILLE ROAD", PREPARED BY AND FILED WITH THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION, APPROVED DECEMBER 1994, AND FILED AS PLAN NO. 146-11 AND FILE NO. 146-01105-.RW.
6. MAP ENTITLED "IMPROVEMENT LOCATION SURVEY PREPARED FOR MR. SPARKLE CAR WASH", PREPARED BY GARDNER & PETERSON ASSOCIATES, DATED JANUARY 2, 2004, FILED IN THE TOWN CLERK'S OFFICE AS PLAN NO. 5399 AB.
7. MAP ENTITLED "SITE PLAN PREPARED FOR MR. SPARKLE CAR WASH", PREPARED BY GARDNER & PETERSON ASSOCIATES, DATED JUNE 4, 1997, FILED IN THE TOWN CLERK'S OFFICE AS PLAN NO. 5399.
8. MAP ENTITLED " TOWN OF VERNON MAP SHOWING EASEMENT ACQUIRED FROM JOHN A. FERRUOLO BY THE STATE OF CONNECTICUT ROUTE 83/WILSHIRE RD. REALIGNMENT", PREPARED BY JAMES F. BYRNES, JR. P.E.

Sent to Town

LEGEND

— — 124 — — / — — 125 — —	EXISTING CONTOUR
× 123.45	EXISTING SPOT ELEVATION
× TC 123.45	EXISTING TOP OF CURB ELEVATION
× G 122.95	EXISTING GUTTER ELEVATION
× TW 123.45	EXISTING TOP OF WALL ELEVATION
× BW 122.95	EXISTING BOTTOM OF WALL ELEVATION
WV	WATER VALVE
GV	GAS VALVE
GM	GAS METER
UP	UTILITY POLE
GW	GUY WIRE
	AREA LIGHT
	SIGN
	METAL GUIDE RAIL
	PAINTED ARROWS
DMH	DRAINAGE/STORM MANHOLE
SMH	SANITARY/SEWER MANHOLE
MH	UNKNOWN MANHOLE
CB	CATCH BASIN OR INLET
T#	TREE & TRUNK SIZE
10	PARKING SPACE COUNT
	LIGHT
W	WELL
#	TITLE REPORT EXCEPTION
GRT	GRATE ELEVATION
WGR	WOODEN GUARD RAIL
CLF	CHAIN LINK FENCE
DC	DEPRESSED CURB
EOC	EDGE OF CONCRETE
EOP	EDGE OF PAVEMENT
BLDG	BUILDING
BFPA	BUILDING FOOTPRINT AREA
SWL	SOLID WHITE LINE
(TYP)	TYPICAL

ZONING INFORMATION
C (COMMERCIAL) DISTRICT
SOURCE : TOWN OF VERNON CONNECTICUT ZONING REGULATIONS, DATED MAY 1, 2013

ITEMS	REQUIRED
MIN LOT AREA	22,000 SF
MIN LOT WIDTH	100'
MIN FRONT YARD	50'
MIN REAR YARD	50'
MIN SIDE YARD	20'

ZONING INFORMATION
SED (SPECIAL ECONOMIC DEVELOPMENT) DISTRICT
SOURCE : TOWN OF VERNON CONNECTICUT ZONING REGULATIONS, DATED MAY 1, 2013

ITEMS	REQUIRED
MIN LOT AREA	1 AC
MIN LOT WIDTH	150'
MIN FRONT YARD	50'
MIN REAR YARD	30'
MIN SIDE YARD	30'

NOTE: ZONING CRITERIA IDENTIFIED HEREON ARE BASED UPON PRELIMINARY RESEARCH AND PRESENTED FOR REFERENCE ONLY. SAME MUST BE CONFIRMED WITH LOCAL ZONING OFFICIAL AND LEGAL COUNSEL TO CONFIRM VALIDITY.

(1-888-344-7233) STOP - CALL BEFORE YOU DIG!

THE STATE OF CONNECTICUT REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.

CONTROL POINT ASSOCIATES, INC.- ALL RIGHTS RESERVED.
THE COPYING OR REUSE OF THIS DOCUMENT, OR PORTIONS THEREOF, FOR OTHER THAN THE ORIGINAL PROJECT OR THE PURPOSE ORIGINALLY INTENDED, WITHOUT THE WRITTEN PERMISSION OF CONTROL POINT ASSOCIATES, INC., IS PROHIBITED

GRAPHIC SCALE
60' 0 30' 60' 120' 240'
(IN FEET)
1 inch = 60' ft.

THIS SURVEY IS CERTIFIED TO:
JTF PROPERTIES, LLC
COMMONWEALTH LAND TITLE INSURANCE COMPANY
EXPCT, LLC
PEOPLE'S UNITED BANK, NATIONAL ASSOCIATION

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT WAS BASED WERE MADE IN ACCORDANCE WITH THE "2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS", JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 4, 6(B), 7(A), 7(B)(1), 8, 9, 11, 13 & 20 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON DECEMBER 12, 2019.

NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH RAISED IMPRESSION OR STAMPED WITH A BLUE INK SEAL

WILLIAM T. WHIMPLE — DATE
CONNECTICUT PROFESSIONAL LAND SURVEYOR #70290

ALTA/NSPS LAND TITLE SURVEY
JTF PROPERTIES, LLC
371 & 373 TALCOTTVILLE ROAD
LOTS 5A & 6B, MAP 4
TOWN OF VERNON, TOLLAND COUNTY
STATE OF CONNECTICUT

FIELD DATE: 12-6-2019
FIELD BOOK NO.: 19-22
FIELD BOOK PG.: 13
FIELD CREW: J.D.O.
DRAWN: A.J.D.

CONTROL POINT ASSOCIATES, INC.
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
508.948.3000 - 508.948.3003 FAX
ALBANY, NY 5182175010
CHALFONT, PA 2157129800
MANHATTAN, NY 6467800411
MT LAUREL, NJ 6098572099
WARREN, NJ 9086680099

REVIEWED:	APPROVED:	DATE	SCALE	FILE NO.	DWG. NO.
J.R.Z.	W.T.W.	12-13-2019	1"=60'	03-190332	1 OF 2

CURVE TABLE					
CURVE	RADIUS	LENGTH	DELTA ANGLE	CHORD BEARING	CHORD
C1	15666.12	126.22	0°27'42"	S25°22'37"W	126.22
C2	15666.12	207.77	0°45'36"	S25°59'15"W	207.77

MAP REFERENCES :

1. ``ALTA/NSPS LAND TITLE SURVEY - JTF PROPERTIES, LLC - 371 & 373 TALCOTTVILLE ROAD - LOTS 5A & 6B, MAP 4 - TOWN OF VERNON, TOLLAND COUNTY - STATE OF CONNECTICUT'', scale 1" = 60', dated 12-13-2019, Dwg. No. 1 of 2 and prepared by Controlpoint Associates, Inc.

2. ``ALTA/NSPS LAND TITLE SURVEY - JTF PROPERTIES, LLC - 371 & 373 TALCOTTVILLE ROAD - LOTS 5A & 6B, MAP 4 - TOWN OF VERNON, TOLLAND COUNTY - STATE OF CONNECTICUT'', scale 1" = 20', dated 12-13-2019, Dwg. No. 2 of 2 and prepared by Controlpoint Associates, Inc.

3. ``IMPROVEMENT LOCATION SURVEY - PREPARED FOR - MR. SPARKLE CAR WASH - 373 TALCOTTVILLE ROAD - VERNON, CONNECTICUT'', scale 1" = 20', dated 1-02-04 and prepared by Gardner & Peterson Associates.

4. ``THE SHOPPES AT VERNON VALLEY - PHASE 2 - DAYCARE & RETAIL DEVELOPMENT - 370-380 TALCOTTVILLE ROAD (ROUTE83) - VERNON, CONNECTICUT - SITE UTILITY PLAN'', scale 1" = 40', dated 05/23/08 and prepared by BL Companies.

5. ``TOWN OF VERNON - CONTRACT NO. 11 - SANITARY SEWER - STA 20+83.1 TO STA 31+23 - 0+0S TO 1+20.7S - 0+0E TO 3+54.1E - TALCOTTVILLE ROAD'', scale Hor.1" = 40', Vert1"=4', dated 8-21-73 and prepared by A.R. Lombardi Associates, Inc, Consulting Engineers,

LEGEND

STONE WALL	
SANITARY SEWER	S — S
ELECTRIC LINE	E — E
PROPANE LINE	G — G
FENCE	x — x
STORM SEWER	
CONTOUR LINE	100
FOLIAGE LINE	
IRON PIN	
SURVEY MONUMENT	
DRILL HOLE	
CURB CATCHBASIN	
CURBLESS CATCHBASIN	
UTILITY POLE	
UTILITY POLE WITH GUY	
WATER GATE VALVE	
GAS GATE VALVE	
HYDRANT	
SANITARY MANHOLE	
YARD DRAIN	
LIGHT STAND	

MAP REF #1

N26°22'03"E 200.00'

S17°37'57"E 217.80'

N26°22'03"E 268.95'

S26°22'03"W 116.91'

S06°30'10"W 74.7'

S83°37'50"E 1.38'

5/8" iron pin (found disturbed)

5/8" iron pin (found disturbed)

5/8" iron pin (found 90° corner)

Monument (found)

UTILITY RIGHT OF WAY & DRAINAGE EASEMENT (Refer to Map Ref #1)

MAINTENANCE, INGRESS AND EGRESS EASEMENT (Refer to Map Ref #1)

SHADING DENOTES AREA OF PROPOSED ZONE CHANGE (SED to C)

300'

AREA RESERVED FOR INGRESS & EGRESS (Refer to Map Ref #1)

LOOP DETECTOR EASEMENT (Refer to Map Ref #1)

STREET LINE SHOWN ON MAP REF #3

PINE TREE ROW

MAP 4, LOT 6A
N/F
MARCO ENTERPRISE MANAGEMENT LLLP
VOL.2264 – PG.32

#371
MAP 4, LOT 6B
N/F
JTF PROPERTIES LLC

#373
MAP 4, LOT 5A
N/F
JTF PROPERTIES LLC

MAP 4, LOT 5
N/F
BRIAR KNOLL NCM LLC
VOL.2467 – PG.268

Existing Building #373
229.6 Floor elev.
CONCRETE

CATCHBASIN TF=227.39 INV(OUT)= 223.4
SED CHAMBER COVER TF=227.93
SED CHAMBER COVER TF=228.14
MANHOLE TF=228.37 FL(IN)=222.5 FL(OUT)=222.7
CATCHBASIN TF=227.42 FL(IN)=223.6 FL(OUT)=223.6
CATCHBASIN TF=229.17 FL (IN)=223.7 FL(OUT)=223.7
CATCHBASIN TF=228.08 FL (OUT)=223.8
CATCHBASIN TF=232.00
CATCHBASIN TF=231.17
CATCHBASIN TF=230.88
CATCHBASIN TF=231.69

1.3'x3' SIGN 2.5' high
8'high 4'x1' SIGN
SIGN 19' high

SAN MANHOLE TF=233.04 INV=220.8
SAN MANHOLE TF=232.18 INV(N&S)=219.35 INV(W)=222.8
SAN MANHOLE TF=231.66 INV=218.7
SAN MANHOLE TF=232.20 INV(N)=225.0
SAN MANHOLE TF=232.28 INV(S)=223.3 INV(E)=223.2 INV(W)=223.2

TALCOTTVILLE ROAD - a.k.a. -CONNECTICUT ROUTE 83

NOTES:

1. THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-20 AND THE ``STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT'' AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INCORPORATED ON SEPTEMBER 26, 1996.

2. TYPE OF SURVEY = TOPOGRAPHIC SURVEY

3. BOUNDARY DETERMINATION CATEGORY = DEPENDENT RE-SURVEY

4. OWNERS OF RECORD - JTF PROPERTIES LLC (Vol.1464 - Pg.24 & Vol.1977 - Pg.146))

5. PROPERTY LINES, EASEMENTS AND OTHER TITLE NOTES DEPICTED HEREON WERE TAKEN FROM MAP REFERENCES #1 & #2 AND ARE NOT THE PROPERTY/BOUNDARY OPINION OF THIS SURVEYOR.

6. ELEVATION BASED ON TOWN OF VERNON SANITARY SEWER DATUM AND WERE TAKEN FROM MAP REFERENCE #5

7. UNDERGROUND UTILITIES, STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROLE TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS ARE APPROXIMATE AND OTHER SUCH FEATURES MAY EXIST UNKNOWN TO DUFOUR SURVEYING ASSOCIATES. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455

Sent to Tom

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON. THIS MAP AND SURVEY WERE PREPARED IN ACCORDANCE WITH THE STANDARDS OF A CLASS A-2 & T-2 SURVEY AS DEFINED IN THE CODE OF PRACTICE FOR STANDARDS OF ACCURACY OF SURVEYS AND MAPS, ADOPTED SEPT. 26, 1996 AS AMENDED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INCORPORATED.

CARMINE J. MATRASCIA - L.S. #70219
NOT VALID WITHOUT EMBOSSED SEAL

DUFOUR SURVEYING LLC

TOPOGRAPHIC SURVEY

PREPARED FOR: BORGHESI BUILDING & ENGINEERING COMPANY,INC.

PORTION OF #371 & #373 TALCOTTVILLE ROAD, VERNON, CONNECTICUT

SCALE: 1"=20'	APPROVED: CARMINE J. MATRASCIA - L.S. #70219	
DATE: 08-19-2020	JOB NO.: 20-59	FILE NO.: \20-59

DUFOUR SURVEYING LLC
575 NORTH MAIN STREET
BRISTOL, CONNECTICUT
860-314-0502 860-738-0222

TOWN OF VERNON

14 PARK PLACE, VERNON, CT 06066
(860) 870-3640
gmcgregor@vernon-ct.gov

OFFICE OF THE
TOWN PLANNER

MEMORANDUM

TO: Planning and Zoning Commission

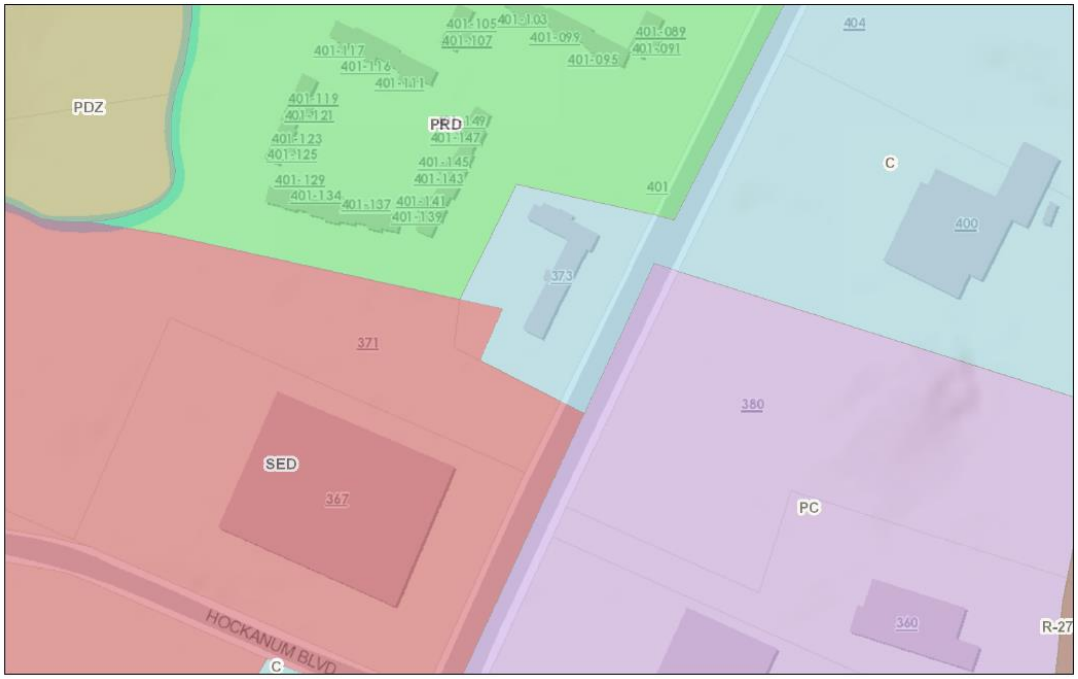
FROM: George K. McGregor, AICP

SUBJECT: PZ-2022-08 371 & 373 Talcottville Rd. ZONE CHANGE

DATE: April 7, 2022

Request & Background

PZ 2022-08, 371 & 373 Talcottville Rd. An Application of Allan Borghesi for a Zone Change from Special Development Zone-Economic Development (SED) to Commercial for a portion of two parcels of property located at 371 (+-1.69 acres) & 373 (+-.10) Talcottville Rd. (Tax Maps 04, Block 0004, Parcel 0006B & 0005A). 371 Talcottville Rd. is undeveloped at this time. There is a small portion of 373 Talcottville (Mr. Sparkle Car Wash) as seen in the Town GIS layer below, also zoned SED. It makes sense to clean that up as a part of this application.



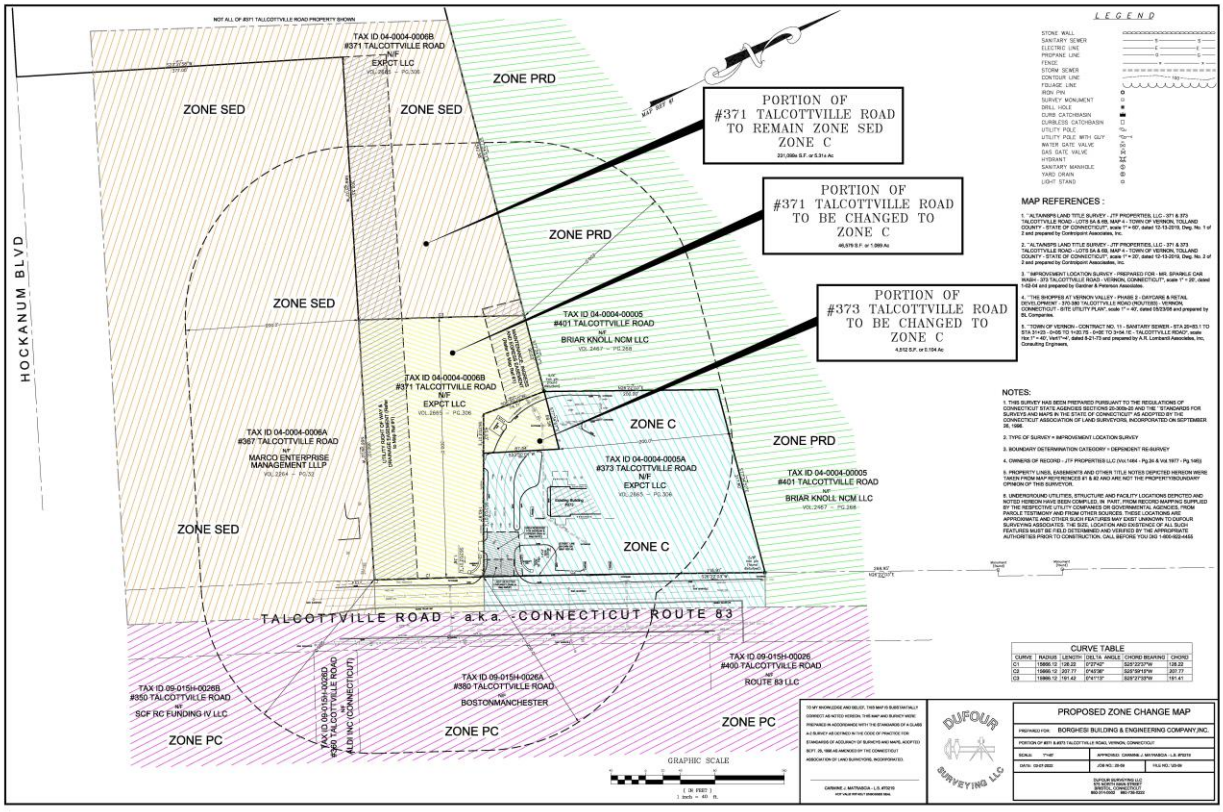
Town of Vernon GIS

Analysis

The Zone Change is desired to allow for the future development of a Valvoline Oil Change facility. General Automotive Repair is permitted by Special Permit in the Commercial Zoning District. It is anticipated that the applicant will follow this request with a Site Plan/Special Permit application in the coming weeks.

The 373 Talcottville portion cleans a small piece of the car wash parcel. For 371 Talcottville, the proposed zone change extends from the Talcottville Rd. frontage to a depth of 300' as shown on the Zone Change map below. The remainder of the parcel would stay as SED as it wraps around with frontage on Hockanum Blvd. Staff finds the Commercial zone is appropriate for Talcottville Rd.; the SED along Hockanum is consistent with the mixed-use development moving west.

The Plan of Conservation and Development designates Rt. 83 Talcottville rd. as Vernon's "primary retail and business corridor" (POCD pg. 26), with those uses fronting on Rt. 83. The request is consistent with the POCD.



DRAFT MOTION(S)

I move the Planning and Zoning Commission <u>APPROVE</u> PZ-2022-08 An Application for a Zone Change from Special Development Zone-Economic Development (SED) to Commercial for a portion of two parcels of property located at 371 (+-1.69 acres) & 373 (+-.10) Talcottville Rd. (Tax Maps 04, Block 0004, Parcel 0006B & 0005A).

APPLICATION AND ATTACHEMENTS

2. PZC 2022-09

P22022-09

TOWN OF VERNON PLANNING & ZONING COMMISSION (PZC) APPLICATION

(Revised March 2021)

The PZC may require additional information to be provided by the applicant in the course of reviewing the application and during the monitoring of the project. Provide all the information requested.

APPLICANT (S)

NAME: Jason Gonzalez

COMPANY: Gonzalez Grappling LLC.

ADDRESS: 1047 Main St. Coventry CT. 06238

TELEPHONE: 860-502-8125 E-MAIL: gonzalezgrappling@gmail.com

PROPERTY OWNER (S)

NAME: Patrick Dwyer

ADDRESS: 77 Industrial Park RD, UNIT 2A

TELEPHONE: 860-989-6636 EMAIL: patrickdwyer1115@gmail.com

If the applicant is not the property owner, include a letter from the property owner authorizing the applicant to seek approval by the PZC, if no signature accompanies the application. (ZR Section 2.3)

PROPERTY

ADDRESS: 77 Industrial park Rd unit 2A

ASSESSOR'S ID CODE: MAP # 25 BLOCK # 0133 LOT/PARCEL # 00005H

2.99km²

LAND RECORD REFERENCE TO DEED DESCRIPTION: VOLUME: 2519 PAGE 255

DOES THIS SITE CONTAIN A WATERCOURSE AND/OR WETLANDS? (SEE THE INLAND WETLANDS MAP AND REGULATIONS)

X NO __YES

___NO REGULATED ACTIVITY WILL BE DONE
___REGULATED ACTIVITY WILL BE DONE
____IWC APPLICATION HAS BEEN SUBMITTED

ZONING DISTRICT I

IS THIS PROPERTY LOCATED WITHIN FIVE HUNDRED (500) FEET OF A MUNICIPAL BOUNDARY?

X NO
____YES: _____

CHECK IF HISTORIC STATUS APPLIES:

____LOCATED IN HISTORIC DISTRICT:_____

____INDIVIDUAL HISTORIC PROPERTY

PROJECT SUMMARY

Describe the project briefly in regard to the purpose of the project and the activities that will occur. Attach to this application a complete and detailed description with maps and documentation as required by the **"Town of Vernon Zoning Regulations"** and **"Town of Vernon Subdivision Regulations"**.

PURPOSE: Relocate SEIF Defense School

GENERAL ACTIVITIES: B. SELF Defense / Jiu Jitsu

APPROVAL REQUESTED

____**SUBDIVISION OR RESUBDIVISION**

____ SUBDIVISION (SUB. SEC. 4, 5, 6)
____ RESUBDIVISION (SUB. SEC. 4, 5, 6)
____ MINOR MODIFICATION OF SUBDIVISION OR RESUBDIVISION (SUB. SEC. 4.6)
____ AMENDMENT OF SUBDIVISION REGULATIONS (SUB. SEC. II)

SEE SUBDIVISION REGULATIONS SEC. 4 FOR APPLICATION FEE SCHEDULES.

____**SOIL EROSION AND SEDIMENT CONTROL PLAN (ESCP)** (ZR SEC. 2.117; 18) (SUB. 6.14)

____**SITE PLAN OF DEVELOPMENT (POD)** (ZR SEC. 14)

____ POD APPROVAL (ZR SEC. 14.1.1.1; 14.1.2)
____ MODIFICATION OF AN APPROVED POD (ZR SEC. 14.1.1.1)
____ MINOR MODIFICATION OF A SITE POD (ZR SEC. 14.1.1.2)

✓**SPECIAL PERMIT(S)** (ZR SECTION 17.3) SECTION: 4.10.4.1

____OTHER SPECIAL PERMIT(S). CITE ZR SECTION AND DESCRIBE ACTIVITY:

Commercial recreation

____**ZONING:**

____ SITE SPECIFIC CHANGE OF ZONING DISTRICT AND MAP (ZR SEC. 1.2; 1.3; 4)
____ AMENDMENT OF ZONING REGULATIONS (SEC. 1.2; 1.3; 4)

CERTIFICATION AND SIGNATURE

The applicant, undersigned, has reviewed the "Town of Vernon Planning and Zoning Regulations" and completed the application with complete and accurate information:

Property Owner, Applicant, or Applicant's Agent:

Jason Gonzalez	Jason Gonzalez	3/25/22
APPLICANT OR AGENT SIGNATURE	PRINTED NAME	DATE
OWNER'S SIGNATURE, IF DIFFERENT	PRINTED NAME	DATE

Industrial Property Group, LLC
PO Box 154
Vernon, CT. 06066

3/20/2022

Jason Gonzalez
Gonzalez Grappling LLC
1047 Main St
Coventry CT 06238

Dear Jason,

Industrial Property Group ("IPG"), as owner of the property, authorizes you to request approval from the Town of Vernon Planning and Zoning office to utilize Unit 2A for your self defense academy as you have described to me and in accordance with all Town zoning requirements, Building Codes and good practice.

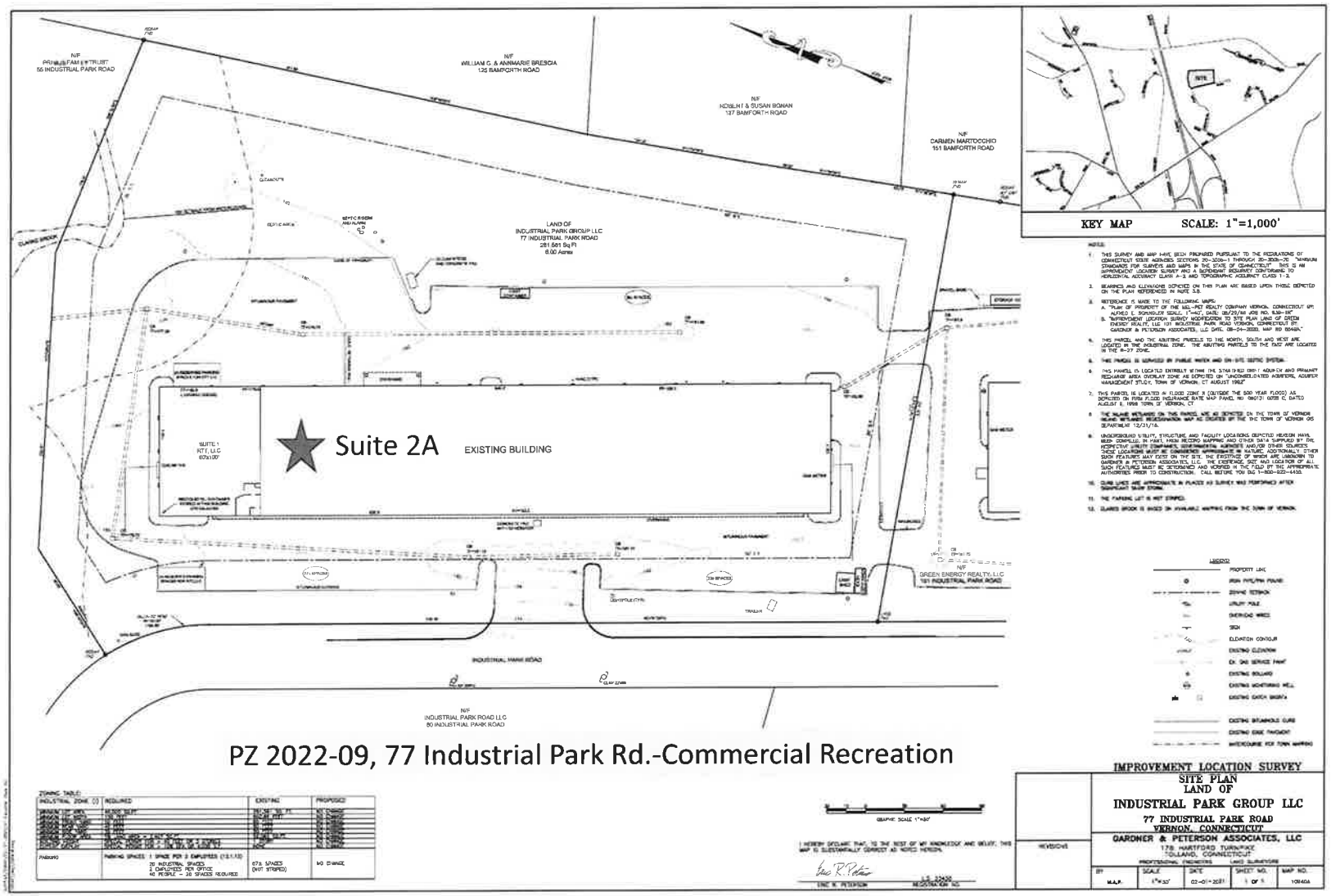
Please provide me with a copy (email) of the building/zoning permit application and permit upon approval by the Town.

Sincerely,

Patrick Dwyer

Patrick Dwyer, Manager

Industrial Property Group LLC
77 Industrial Park Road, Unit 2A, Vernon, CT 06066
860-989-6636
patrickdwyer1115@gmail.com


N/F
PRIMELIFE TRUST
55 INDUSTRIAL PARK ROAD
N/F
WILLIAM C. & ANNMARIE BRESCIA
125 BAMFORTH ROAD
N/F
ROBERT & SUSAN BONAN
137 BAMFORTH ROAD
N/F
CARMEN MARTOCCHIO
151 BAMFORTH ROAD
LAND OF
INDUSTRIAL PARK GROUP LLC
77 INDUSTRIAL PARK ROAD
281,661 Sq Ft
6.00 Acres
SEPTIC SYSTEM AND PUMPS
SEPTIC AREA
SUITE 1
R.T.I. LLC
60'x100'
Suite 2A
EXISTING BUILDING
CLAWS BROOK
INDUSTRIAL PARK ROAD
N/F
GREEN ENERGY REALTY, LLC
151 INDUSTRIAL PARK ROAD
N/F
INDUSTRIAL PARK ROAD LLC
80 INDUSTRIAL PARK ROAD
SITE
KEY MAP
SCALE: 1"=1,000'
NOTES:
1. THIS SURVEY AND MAP HAVE BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT". THIS IS AN IMPROVEMENT LOCATION SURVEY AND A BOUNDARY SURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS A-2 AND TOPOGRAPHIC ACCURACY CLASS T-2.
2. BEARINGS AND ELEVATIONS DEPICTED ON THIS PLAN ARE BASED UPON THOSE DEPICTED ON THE PLAN REFERENCED IN NOTE 3.B.
3. REFERENCE IS MADE TO THE FOLLOWING MAPS:
A. "PLAN OF PROPERTY OF THE BEL-PAT REALTY COMPANY VERNON, CONNECTICUT SP: ALFRED E. RONNEBURY SCALE: 1"=40', DATE: 08/29/94 JOB NO. 8.39-197.
B. "IMPROVEMENT LOCATION SURVEY MODIFICATION TO SITE PLAN LAND OF GREEN ENERGY REALTY, LLC 151 INDUSTRIAL PARK ROAD VERNON, CONNECTICUT BY: GARDNER & PETERSON ASSOCIATES, LLC DATE: 08-04-2020, MAP NO 8548A."
4. THIS PARCEL AND THE ABUTTING PARCELS TO THE NORTH, SOUTH AND WEST ARE LOCATED IN THE INDUSTRIAL ZONE. THE ABUTTING PARCELS TO THE EAST ARE LOCATED IN THE R-27 ZONE.
5. THIS PARCEL IS SERVICED BY PUBLIC WATER AND ON-SITE SEPTIC SYSTEM.
6. THIS PARCEL IS LOCATED ENTIRELY WITHIN THE STRATIFIED DRIFT AQUIFER AND PRIMARY RECHARGE AREA OVERLAY ZONE AS DEPICTED ON "UNCONSOLIDATED AQUIFERS, AQUIFER MANAGEMENT STUDY, TOWN OF VERNON, CT AUGUST 1982".
7. THIS PARCEL IS LOCATED IN FLOOD ZONE X (OUTSIDE THE 500 YEAR FLOOD) AS DEPICTED ON FIRM FLOOD INSURANCE RATE MAP PANEL NO 09013 0028 C DATED AUGUST 5, 1998 TOWN OF VERNON, CT.
8. THE WILDLIFE WETLANDS ON THIS PARCEL ARE AS DEPICTED ON THE TOWN OF VERNON WILDLIFE WETLANDS DELINEATION MAP AS DRAWN BY THE TOWN OF VERNON GIS DEPARTMENT 12/31/16.
9. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED HEREON HAVE BEEN COMPILED IN PART FROM RECORD MAPPING AND OTHER DATA SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES, GOVERNMENTAL AGENCIES AND/OR OTHER SOURCES. SUCH LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE. THE EXISTENCE OF WHICH ARE UNKNOWN TO GARDNER & PETERSON ASSOCIATES, LLC. THE EXISTENCE, SIZE AND LOCATION OF ALL SUCH FEATURES MUST BE DETERMINED AND VERIFIED IN THE FIELD BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.
10. CURB LINES ARE APPROXIMATE IN PLACES AS SURVEY WAS PERFORMED AFTER SIGNIFICANT SNOW STORM.
11. THE PARKING LOT IS NOT STRIPED.
12. CLAWS BROOK IS BASED ON AVAILABLE MAPPING FROM THE TOWN OF VERNON.
LEGEND
PROPERTY LINE
IRON PIPE/PIN FOUND
ZONING SETBACK
UTILITY POLE
OVERHEAD WIRES
SIGN
ELEVATION CONTOUR
EXISTING ELEVATION
EX. GAS SERVICE PAINT
EXISTING BOLLARD
EXISTING MONITORING WELL
EXISTING CATCH BASIN
EXISTING BITUMINOUS CURB
EXISTING CONC PAVEMENT
WATERCOURSE PER TOWN MAPPING
PZ 2022-09, 77 Industrial Park Rd.-Commercial Recreation
ZONING TABLE:
INDUSTRIAL ZONE (I)
REQUIRED
EXISTING
PROPOSED
PARKING
PARKING SPACES: 1 SPACE PER 2 EMPLOYEES (12:1.10)
20 INDUSTRIAL SPACES
2 EMPLOYEES PER OFFICE
40 PEOPLE = 20 SPACES REQUIRED
67± SPACES
(NOT STRIPED)
NO CHANGE
GRAPHIC SCALE 1"=30'
I HEREBY DECLARE THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.
ERIC R. PETERSON
L.S. 22426
REGISTRATION NO.
REVISIONS
IMPROVEMENT LOCATION SURVEY
SITE PLAN
LAND OF
INDUSTRIAL PARK GROUP LLC
77 INDUSTRIAL PARK ROAD
VERNON, CONNECTICUT
GARDNER & PETERSON ASSOCIATES, LLC
178 HARTFORD TURNPIKE
TOLLAND, CONNECTICUT
PROFESSIONAL ENGINEERS LAND SURVEYORS
BY: M.A.P.
SCALE: 1"=30'
DATE: 02-01-2021
SHEET NO.: 1 OF 1
MAP NO.: 10R40A

TOWN OF VERNON

14 PARK PLACE, VERNON, CT 06066
(860) 870-3640
gmcgregor@vernon-ct.gov

PLANNING
DEPARTMENT

MEMORANDUM

TO: Planning and Zoning Commission

FROM: George K. McGregor, AICP, Town Planner

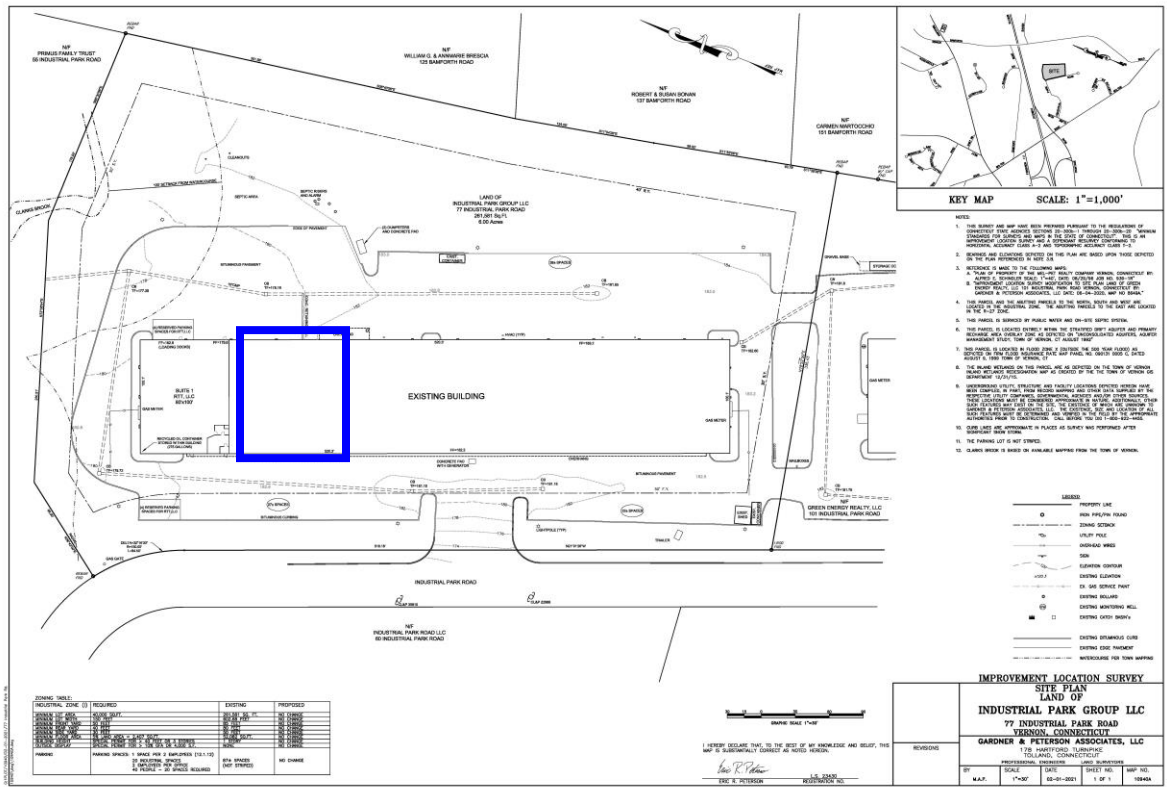
SUBJECT: PZ-2022-09, 77 Industrial Park Rd. Commercial Recreation

DATE: April 21, 2022

Request and Background



PZ 2022-09, 77 Industrial Park Rd.-Commercial Recreation. An Application of Jason Gonzalez, of Gonzalez Grappling, LLC, requesting a special permit pursuant to Section 4.10.4.1, to allow a commercial recreation use (martial arts studio) at 77 Industrial Park Rd. (Tax Map 28, Block 0133, Parcel 0005H). The Applicant plans to occupy +-2,000 sq. ft. in space 2A at 77 Industrial Park (shown above) for the self defense and martial arts business.



Site Plan-77 Industrial Park, Suite 2A

Special Permit Review

In order to approve a special permit, the Commission is expected to find that the applicant meets the relevant general special permit criteria of Section 17.3.1, specifically:

17.3.1.1 It shall not create a hazardous condition relative to public health and safety;

17.3.1.2 It shall be compatible with neighboring uses;

17.3.1.3 It shall not create a nuisance;

17.3.1.4 It shall not hinder the future sound development of the community;

17.3.1.5 It shall conform to all applicable sections of this ordinance;

Analysis and Recommendation

The martial arts studio is proposed in a 2,000 sq. ft. space. No significant site or internal construction is planned. The applicant has indicated typical hours of operation as 4 p.m. to 8 p.m., but that could change as the business grows. The studio the applicant operates in Coventry currently hosts 12 students total. Thus, the classes are much smaller. There is ample parking onsite for this tenant space (parking for this use is 1 space per four students, 1 space for employee).

There are no identified outstanding issues; this use meets the relevant criteria found in the Zoning Ordinance, Section 17.3.1.

Draft Motions

A. I move that the Planning and Zoning Commission Approve PZ-2022-09, a special permit commercial recreation based upon a finding that the special permit meets the relevant general special permit criteria of 17.3.1.

OR

B. I move an alternate motion

APPLICATION AND ATTACHEMENTS

3. PZC 2022-05

RUSSO
SURVEYORS • ENGINEERS

January 24, 2022

George McGregor
Town Planner
55 West Main Street, 2nd Floor
Vernon, CT 06066

Re: The Learning Experience (TLE)
501 Talcottville Road, Vernon

Dear George,

On behalf of the Vernon Development LLC, I am pleased to submit the attached application for approval of a Site Plan of Development and Special Permits associated with the development of The Learning Experience (TLE) Academy of Early Education at 501 Talcottville Road in Vernon, Connecticut. The subject parcel currently consists of 4.6 acres of undeveloped woodland located at the intersection of Dart Hill Road and Talcottville Road (Rte. 83). In conjunction with the proposed TLE development, the owner is proposing to divide the existing parcel into two lots, including a 2.0 acre lot adjacent to Dart Hill Road to be developed with the TLE facility, and a remaining 2.6 acre lot fronting on Talcottville Road for potential future development. The subdivision application to split the parcel will be submitted to be considered concurrently with the site plan/special permit applications for the TLE development.

The proposed TLE development will involve the construction of a 10,000 square foot building, 5,000 square foot playground and associated parking. Access to the site will be provided via a driveway on Dart Hill Road directly across from the western Walgreens drive. A traffic study prepared by Fuss & O'Neill is included with the application materials. The traffic study concludes that the proposed development will not have a significant impact to the traffic operations in the vicinity of the site.

Runoff from the building and parking lot will be directed to a subsurface infiltration system and surface infiltration basin designed to provide treatment, groundwater recharge and detention prior to discharge at the edge of the existing on-site wetland. A retaining wall is proposed along the southern edge of the development in order prevent any direct wetland disturbance.

If there are any questions, or you require further information, please call me at (860) 623-0569.

Very truly yours,

Timothy A. Coon

Timothy A. Coon, P.E.
J.R. Russo & Associates, LLC

Attachments
cc: Vernon Traffic Authority
Eric Spungin

From: Tim Coon
To: McGregor, George; James Basile
Cc: Gately, Shaun; Eric Spungin; James Basile; Scrittorale, Ryan
Subject: [EXTERNAL] RE: 501 Talcottville rd
Date: Thursday, March 17, 2022 11:13:13 AM
Attachments: image001.png

CAUTION: This Email is from an EXTERNAL source. Ensure you trust this sender before clicking on any links or attachments.

George,

The applicant does not have a problem with that. Consider this a formal request to open the Public Hearing on April 21st and grant an extension to the time to May 6, 2022, to allow for it to be continued to the May meeting. Thanks.

Timothy A. Coon, P.E.
Principal Engineer

RUSSO
SURVEYORS · ENGINEERS

J.R. RUSSO & ASSOCIATES, LLC
P.O. Box 938, 1 Shoham Road
East Windsor, CT 06088
CT 860.623.0569 **MA** 413.785.1158
tcoon@jrrusso.com | www.jrrusso.com

From: McGregor, George <GMcGregor@vernon-ct.gov>
Sent: Thursday, March 17, 2022 10:59 AM
To: Tim Coon <tcoon@jrrusso.com>; James Basile <basile.enterprises@comcast.net>
Cc: Gately, Shaun <sgately@vernon-ct.gov>
Subject: 501 Talcottville rd

Any further thoughts on pushing the opening of the public hearing for both items to April 21 instead of April 7?

This would at least allow the Traffic Authority to have met and forward a recommendation?

George

TOWN OF VERNON PLANNING & ZONING COMMISSION (PZC)

APPLICATION

This form is to be used to apply to the Vernon Planning & Zoning Commission (PZC) for a change of zoning district, amendment of the Zoning Regulations, Site Plan of Development (POD), Special Permit(s), amendment of the Subdivision Regulations, and/or approval of a (re) subdivision, or DMV location approval. **Provide all the information requested.**

The applicant must be the property owner, the property owner's agent, the Town of Vernon, or someone with a direct financial interest in the subject property; said interest shall be explained and written permission for this application must be obtained from the property owner and submitted with this application if the applicant is not the property owner (ZR Section 2.3).

The list of approvals and the references to sections of the Regulations are for informational purposes only to assist with preparation of the PZC application and are not a definitive statement of the sole requirements that may apply to a specific project.

The applicant understands that the application is complete only when all information and documents required by the PZC have been submitted and, further, that any approval by the PZC relies upon complete and accurate information being provided by the applicant. **Incorrect information provided by the applicant may make the approval invalid.** The PZC may require additional information to be provided by the applicant in the course of reviewing the application and during the monitoring of the project.

Provide all the information requested:

I. APPLICANT:

Name: Eric Spungin

Title: Member

Company: Vernon Development LLC

Address: 56 East Main St., Avon, CT 06001

Telephone: 860-677-5607 Fax: _____

E-mail espungin@hotmail.com

II. PROPERTY OWNER (S):

Name: James Basile

Title: _____

Company: 501 Talcottville Road LLC

Address: 43 Ridgecrest Lane
Bristol, CT 06010-2910

Telephone: 860-202-9540 Fax _____

E-mail: _____

III. PROPERTY

Address: 501 Talcottville Road

Assessor's ID Code: Map # 09 Block # 007 Lot/Parcel # 0001D

Land Record Reference to Deed Description: Volume: 2026 Page 51

Does this site contain a watercourse and/or wetlands? (See the Inland Wetlands Map and IWR Section 2.14, 2.15, 2.23, 2.24, 3.11; 4)

__ No X Yes

___No work will be done in regulated area
X Work will be done in the regulated area

X IWC application has been submitted
__ IWC application has not been submitted

Zoning District Commercial

Is this property located within five hundred (500) feet of a municipal boundary?

X No
____Yes:

____Bolton
____Coventry
____Ellington
____Manchester
____South Windsor
____Tolland

Check if Historic Status Applies:

____Located in historic district:

____Rockville
____Talcottville

____Individual historic property

IV. PROJECT

Project Name: The Learning Experience

Project Contact Person:

Name: Timothy Coon

Title: Project Engineer

Company: J.R. Russo + Associates LLC

Address: P.O. Box 938
East Windsor, CT 06088

Telephone: 860-623-0569 **Fax:** 860-623-2485

E-mail: tcoon@jrrusso.com

V. PZC APPLICATION
PROJECT SUMMARY

Describe the project briefly in regard to the purpose of the project and the activities that will occur. Attach to this application a complete and detailed description with maps and documentation as required by the "Town of Vernon Zoning Regulations" and "Town of Vernon Subdivision Regulations".

Purpose: Construction of a 10,000 SF Daycare Facility

General Activities: Filling, excavation + building and parking lot construction

VI. APPROVAL (S) REQUESTED

___ **Subdivision or Resubdivision**

- ___ Subdivision (Sub. Sec. 4, 5, 6)
- ___ Resubdivision (Sub. Sec. 4, 5, 6)
- ___ Minor modification f subdivision or resubdivision (Sub. Sec. 4.6)
- ___ Town acceptance of a road (Sub. Sec. 6.5-6. 8 & 9)
- ___ Amendment of Subdivision Regulations (Sub. Sec. II)

See Subdivision Regulations Sec. 4 for application fee schedules.

X **Soil Erosion and Sediment Control Plan (ESCP)** (ZR Sec. 2.117; 18) (Sub. 6.14)

X **Site Plan of Development (POD)** (ZR Sec. 14)

- ___ POD approval (ZR Sec. 14.1.1.1; 14.1.2)
- ___ Modification of an approved POD (ZR Sec. 14.1.1.1)
- ___ Minor modification of a site POD (ZR Sec. 14.1.1.2)

X **Special Permit(s)** (ZR Section 17.3)

- ___ Special Permit in an aquifer area (ZR Sec. 2.4; 2.5; 2.119; 20)
- ___ Special Permit for excavation (ZR Sec. 2.52; 2.79; 15)
- ___ Special Permit for use in a district (ZR Sec. 1.2 & 4)

- ___ Special Permit for lot coverage (ZR Sec. 1.2; 2.61; 2.68; 4)
- ___ Special Permit for signs (ZR Sec. 1.2; 2.106-115; 4; 16; 21.7)
- X Special Permit for parking (ZR Sec. 4; 12; 21.4 4.9.4.15.1

- ___ Special Permit for elderly housing (ZR Sec. 2.60; 17.4)
- ___ Special Permit for Bed & Breakfast (B & B) (ZR Sec. 2.9; 17.3.4)
- ___ Special Permit for serving alcohol (ZR Sec. 2.103, 17.1)

- ___ Special Permit for massage (ZR Sec. 2.76-78; 4)
- ___ Special Permit for telecommunications (ZR Sec. 2.21; 3.23 & 23)
- ___ Special Permit for dumps and/or incinerators (ZR Section 8)

X Other Special Permit(s). Cite ZR Section and describe activity:

Special Permit for structure within 200' of resid. structure (4.9.4.15.2)

Special Permit for parking within 100' of resid. structure (4.9.4.15.3)

____ Special Permit modifications (ZR Sec. 17.3.2.2). Cite ZR Section and describe activity.

_____

_____

_____

_____

____ **Zoning:**

____ Site specific change of zoning district and map (ZR Sec. 1.2; 1.3; 4)
____ Amendment of Zoning Regulations (Sec. 1.2; 1.3; 4)

____ Site specific change to the Aquifer Protection Overlay Zone Map (ZR Sec. 20.3.2)

See Zoning Regulations Section 22 for application fee schedules.

_____ Dealer or Repairer License (location approval for DMV)

Per Connecticut General Statutes (CGS) Section 8-26: If an application submitted to the Planning & Zoning Commission (PZC) involves any activity or area regulated under the wetlands statutes, an application for this activity must be filed with the Inland Wetlands Commission (IWC) on or before the day the Planning & Zoning Commission (PZC) application is filed by the applicant. (IWR Sec. 3.11)

Per CGS Sec. 8-31: If the proposed activity is to take place within a watershed of a Water company, the applicant is required to file a copy of the application with the Water Company via certified mail within seven (7) days of the date of the application. (IWR Sec. 4.3.6).

The applicant, undersigned, has reviewed the "Town of Vernon Planning and Zoning Regulations and Inland Wetlands and Watercourses Regulations" and has prepared this application with complete and accurate information:

Property Owner, Applicant, or Applicant's Agent:

Eric Spungin Member
Eric Spungin

Vernon Development LLC — 12/23/21
Signature — Date

Member — 12/23/21
Signature — Date
James J. Basile
Soil Talcottville Road, LLC

TO BE FILLED IN BY THE PLANNING DEPARTMENT

Date Application Submitted _____

Date Application Received by Commission _____

PZC File: _____

Abutters List/Mailing Labels (200')

KAO LLC
192 Talcott Ridge Rd
South Windsor, CT 06074

Gregory Gozzo
C/O Gozzo Estate Homes
190 Spyglass Lane
Jupiter, FL 33477

Independence Realty Group LLC
c/o Webster Bank: Corp RE 203
145 Bank Street
Waterbury, CT 06702

Kenneth Busenbark
32 Worcester Road
Vernon, CT 06066

Richard & Gloria J. Martocchio
36 Worcester Road
Vernon, CT 06066

Nelson J. & Theresa M. Chiasson
42 Worcester Road
Vernon, CT 06066

Brian F. Oulette
& Stephanie M. Brow
46 Worcester Road
Vernon, CT 06066

John Coro
52 Worcester Road
Vernon, CT 06066

James D. & Bonnie R. King
58 Worcester Road
Vernon, CT 06066

Thomas Shirshac
64 Worcester Road
Vernon, CT 06066

Eugene P. & Judith S. Veillette
786 Dart Hill Road
Vernon, CT 06066-2302

Town of Vernon
14 Park Place
Vernon, CT 06066

Vernon Properties LLC
605 Middel Street, No. 15
Braintree, MA 02184-5817

Realty Income Corp
PM Dept 0704
11995 El Camino Real
San Diego, CA 92130

O'Reilly Automotive Store Inc.
P.O. Box 9167
Springfield, MO 65801

New 500 East LLC
44 Caisson Road
Colchester, CT 06415

Allen C. & Leatrice Trombley
28 Worcester Road
Vernon, CT 06066

Ian B. Carlson
24 Worcester Road
Vernon, CT 06066

Eileen M. Reivik
47 Worcester Road
Vernon, CT 06066

Dorine L. Decarli
51 Worcester Road
Vernon, CT 06066

Monica Cofrancesco
776 Dart Hill Road
Vernon, CT 06066

PLEASE RETURN TO:
M. STIEGEL
86 FARMINGTON AVE.
HARTFORD, CT. 06105

VOL 2026 PG 51
INST: 55

QUITCLAIM DEED

VICTOR J. BASILE ("**Releasor**"), of 43 Ridgecrest Lane, Bristol, Connecticut, for no consideration paid, grants to **501 TALCOTTVILLE ROAD, LLC** of 43 Ridgecrest Lane, Bristol, Connecticut ("**Releasee**") all that certain piece or parcel of land together with all improvements thereon and appurtenances thereto in the Town of Vernon, Connecticut, as more particularly described on Exhibit A attached hereto and made a part hereof ("**Premises**"). Releasee herein assumes and agrees to pay all real property taxes attributable to the Premises on the list of October 1, 2006 and thereafter.

SAID PREMISES IS CONVEYED SUBJECT TO, WITHOUT LIMITATION:

1. Taxes of the Town of Vernon on the List of October 1, 2006 now due and payable and thereafter, which Releasee herein assumes and agrees to pay.

2. Any and all provisions of any ordinance, municipal regulation, or public or private law.

3. Declarations, restrictions, covenants, matters and easements of record and any state of facts an accurate survey or personal inspection of the Premises might reveal.

Signed this 7th day of February, 2007

Witnessed by:

MICHAEL S. STIEGEL, as witness

VICTOR J. BASILE

ROBERT A. FIRGE, as witness

STATE OF CONNECTICUT)
) ss: Hartford
COUNTY OF) (town)

On this the 7th day of February, 2007, before me, the undersigned officer, personally appeared Victor J. Basile, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same for the purposes therein contained and as his free act and deed.

In witness whereof I hereunto set my hand.

Commissioner of the Superior Court
Notary Public
My Commission Expires:

Grantee's Address: 43 Ridgecrest Lane
Bristol, Connecticut 06010

CONVEYANCE TAX RECEIVED
STATE $ .00
TOWN $ .00
Bernice K. Dixon
TOWN CLERK OF VERNON

Exhibit A

A certain piece or parcel of land situated on the westerly side of Talcottville Road (Route 83) and the southerly side of Dart Hill Road in the Town of Vernon, County of Tolland and State of Connecticut, being shown as "Parcel 3 Parcel contains 200,968 S.F.±, 4.6136 AC±", on a certain map or plan entitled "Subdivision Plan Prepared For John J. Mahr, Sr. Boundary Map Talcottville Rd. & Dart Hill Rd. Vernon, Conn. AR Lombardi Associates, Inc. Consulting Civil and Sanitary Engineers Land Surveyors Vernon Connecticut Comm. No: 84-1091 Date: March 7, 1985 Scale: 1" = 40' Sht. No: 1 of 2", which map or plan is on file or to be filed in the Vernon Town Clerk's Office and to which reference may be had for a more particular description thereof. Said Parcel 3 is more particularly bounded and described as follows:

Commencing at a point in the southerly street line of Dart Hill Road, which point marks the northwesterly corner of the hereindescribed premises and the northeasterly corner of land now or formerly of Antoine F. Bourcher, as shown on said map; thence proceeding in a southerly direction along said land now or formerly of Antoine F. Bourcher, land now or formerly of Thomas A. & Linda M. Shirshac, and land now or formerly of Eilean M. Strube, partly by each, a distance of 408.91 feet to a point; thence turning an obtuse interior angle of 179° 35' 27" and proceeding along land now or formerly of Alice M. Coro, land now or formerly of Peggy O. Tracy, land now or formerly of Nelson J. and Teresa M. Chiasson, land now or formerly of Paul J. and Linda Jobkowiak and land now or formerly of David M. Glenn Jr. and Sharon L. Glenn, partly by each, as shown on said map, a distance of 470.12 feet to a point; thence turning an obtuse interior angle of 103° 44' 36" and proceeding along Parcel 1, as shown on said map, a distance of 11.73 feet to a point; thence turning an acute interior angle of 76° 53' 42" and proceeding along land now or formerly of Cardinal Industries, Inc., as shown on said map, a distance of 211.66 feet to a point; thence turning an obtuse interior angle of 180° 04' 41" and proceeding along land now or formerly of Gregory Gozzo and David J. Sweeney, as shown on said map, a distance of 268.00 feet to a point; thence turning an obtuse interior angle of 289° 53' 43" and proceeding along said land now or formerly of Gregory Gozzo and David J. Sweeney, a distance of 403.00 feet to a point in the westerly street line of Talcottville Road; thence proceeding along the arc of a curve to the left having a radius of 2,506.67 feet, a distance of 322.92 feet along the westerly street line of Talcottville Road to a Connecticut Highway Department Monument in said westerly street line of Talcottville Road; thence proceeding along said westerly street line of Talcottville Road, a distance of 41.55 feet to a point; thence turning an acute interior angle of 82° 53' 05" and proceeding along Parcel No. 2, as shown on said map, a distance of 200.86 feet to a point; thence turning an interior obtuse angle of 277° 06' 55" and proceeding along Parcel No. 2, as shown on said map, a distance of 159.68 feet to a point; thence turning an interior acute angle of 77° 09' 29" and proceeding along the southerly street line of Dart Hill Road, as shown on said map, a distance of 352.53 feet to the point or place of beginning.

RECORDED IN
VERNON LAND RECORDS
Bernice K. Dixon
VERNON TOWN CLERK
ON Dec 05,2008 AT 12:30P

LID CHECKLIST

Applicants must complete and submit the following checklist with the application.

Date: 12/22/21 **Project:** The Learning Experience, 501 Talcottville Road

Conformance with the following criteria shall be initialed in the spaces provided below by a Connecticut Registered Professional Engineer, Land Surveyor, or Certified Soils Scientist as appropriate. If conditions cannot be met comments addressing each item should be provided by the applicant in the space provided below. Comments will be reviewed with Town Staff at the scheduled Development Staff Meeting and documented.

Item	Description	Verified	Comments
1	An Existing Conditions Plan is provided documenting sensitive natural resources including but not limited to existing wetlands (as designated by a Certified Soils Scientist in Connecticut), streams, ponds, vernal pools, flood zones, stream channel encroachment lines, soil types and infiltration rates, wells, tree lines, property boundaries, and other items that may be requested by the Town.	TAC	
2	Utilizing the Existing Conditions Plan as a guide, development has been located to maximize preservation of contiguous natural sensitive areas.	TAC	
3	Proposed site developments for residential or two family dwellings on more than one individual parcel, all commercial, industrial, and retail developments have been guided by the applicable requirements of the Town's Low Impact Development Stormwater Quality Manual and the Connecticut Storm Water Quality Manual.	TAC	
4	Bioretention Basins or Rain Gardens have been incorporated within yards, median strips, cul-de-sacs islands, and parking lot islands.		All runoff diverted to an infiltration basin for treatment + groundwater recharge.

Date: 12/22/21 **Project:** The Learning Experience, 501 Talcottville Rd

Conformance with the following criteria shall be initialed in the spaces provided below by a Connecticut Registered Professional Engineer, Land Surveyor, or Certified Soils Scientist as appropriate. If conditions cannot be met comments addressing each item should be provided below. Comments will be reviewed with Town Staff at the scheduled development staff meeting and documented.

Item	Description	Verified	Comments
5	Dry Wells have been incorporated into the design to control roof and pavement runoff.		Roof runoff diverted directly to infiltration basin.
6	Permeable (Porous) Pavement has been incorporated into areas of low traffic, parking lots, residential and light commercial use driveways, walkways, bike paths, etc.		Infiltration provided at infiltration basin.
7	Natural areas including woodlands, regulated wetland areas, naturally vegetated areas have been preserved/ and or replicated to the maximum extent practical.	TAC	
8	Post Development stormwater runoff is at or less than the predevelopment runoff.	TAC	
9	Stormwater infiltration has been provided by the use of underground storage units, devices, and/or infiltration swales/trenches.	TAC	
10	Level spreaders/vegetation have been provided at storm drainage outfalls to enhance water quality and mitigate erosion.	TAC	

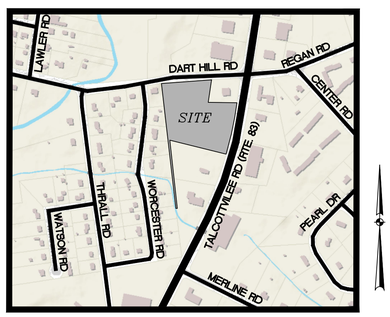
Date: 12/22/21 Project: The Learning Experience 501 Talcottville Rd

Conformance with the following criteria shall be initialed in the spaces provided below by a Connecticut Registered Professional Engineer, Land Surveyor, or Certified Soils Scientist as appropriate. If conditions cannot be met comments addressing each item should be provided below. Comments will be reviewed with Town Staff at the scheduled development staff meeting and documented.

Item	Description	Verified	Comments
11	On-Site retention/detention facilities have been provided to address water quality and storm water runoff.	TAC	
12	Rain Barrels, cisterns, and/or other rainwater harvesting techniques to reuse rainwater for irrigation and other non-potable uses are incorporated into the design.		Not applicable.
13	An Erosion and Sedimentation Control Plan conforming to the Standards of the Connecticut Guidelines for Soil Erosion and Sediment Control is included in the design.	TAC	
14	A yearly maintenance plan of all components of best management practices associated with storm water management has been provided.	TAC	
15	Impervious area percentages for pre and post development have been provided.	TAC	
16	When conflicts exist between the Town's Low Impact Development Stormwater Quality Manual and the Connecticut Storm Water Quality Manual the State Manual shall govern.	TAC	

THE LEARNING EXPERIENCE
ACADEMY OF EARLY EDUCATION

501 Talcottville Road
Vernon, Connecticut



KEY PLAN MAP
1"=500'

Applicant

Vernon Development LLC
56 East Main Street
Avon, CT 06001
(860) 677-5607

Owner

501 Talcottville Road LLC
43 Ridgecrest Lane
Bristol, CT 06010-2910

LADA, P.C.
Land Planners
104 West Street
Simsbury, CT 06070 (860) 651-4971
Brewster, NY 10509 (845) 278-7424
Email: ladapc@snet.net

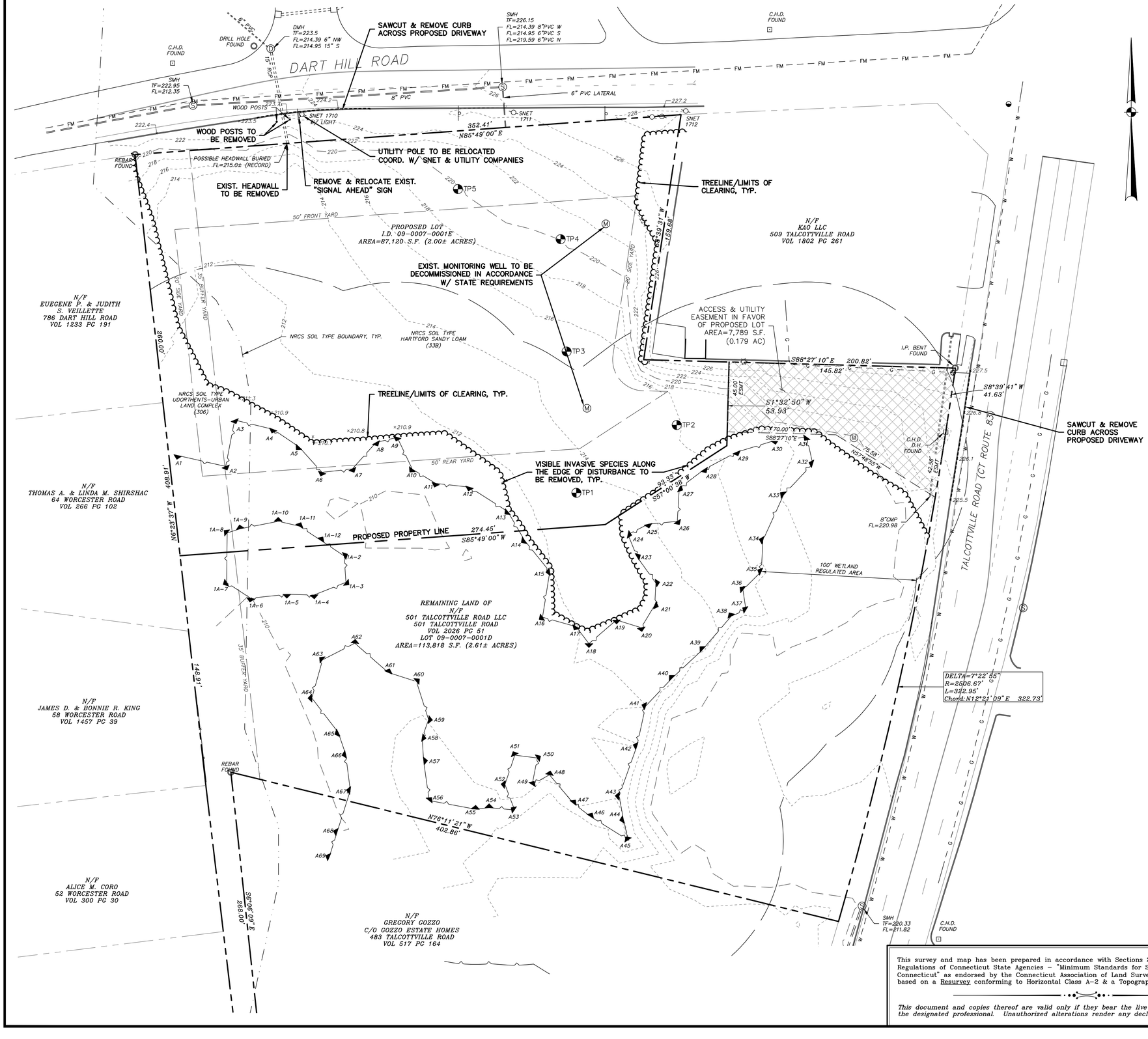
RUSSO
SURVEYORS • ENGINEERS
SERVING CT & MA
J.R. Russo & Associates, LLC
1 Shoham Rd East Windsor CT 06088 • CT 860.623.0569 • MA 413.785.1158
www.jrrusso.com • info@jrrusso.com

ALTERNATE #1

DRAWING INDEX

SHEET TITLE	SHEET NO.	LATEST REVISION
CIVIL		
COVER SHEET	1 of 12	4-06-2022
EXISTING CONDITIONS & DEMOLITION PLAN	2 of 12	3-17-2022
LAYOUT PLAN	3 of 12	3-17-2022
GRADING & EROSION & SEDIMENT CONTROL PLAN	4 of 12	3-17-2022
STORM SEWER PLAN	5 of 12	3-17-2022
UTILITY PLAN	6 of 12	3-28-2022
PLANTING PLAN	7 of 12	4-06-2022
EROSION & SEDIMENT CONTROL NOTES	8 of 12	3-17-2022
DETAILS	9 of 12	3-17-2022
DETAILS	10 of 12	3-17-2022
DETAILS	11 of 12	3-17-2022
DETAILS	12 of 12	3-17-2022

S:\Acad\2021 Civil 3D\2021-083 Vernon Development - 501 Talcottville Rd\Russo Drawings\2021-083 A.dwg



Reference Maps:

1. "Boundary Survey Prepared for 501 Talcottville Road LLC, 501 Talcottville Road (CT Route 83) & Dart Hill Road, Vernon, Connecticut" Sheet SV.01, Scale: 1"=50' Date: May 2021 by Alfred Benesch & Company.
2. "Topographic Survey Prepared for 501 Talcottville Road LLC, 501 Talcottville Road (CT Route 83) & Dart Hill Road, Vernon, Connecticut" Sheet SV.02Scale: 1"=30' Date: May 2021 by Alfred Benesch & Company.

Notes:

1. Portion of the parcel is located in inland wetlands as delineated by Rema Ecological Services per reference map #2.
2. Proposed lot does not lie within a special flood hazard area per "FEMA flood insurance rate map, town of Vernon, Connecticut community panel number 09013I0005C, revised August 9, 1999".
3. Horizontal and vertical datums are based upon map references prepared by Alfred Benesch & Company.
4. All underground utility locations on this plan are approximate and may not be complete. Anyone using this information without verifying the locations does so at their own risk. No construction will be done on this site prior to utility mark out. "Call Before You Dig 1-800-922-4455".
5. Boundary and existing conditions shown hereon are based on map references prepared by Alfred Benesch & Company.
6. Line striping in Talcottville Road (Rte. 83) approximated based on aerial photography.

LEGEND

	EXISTING UTILITY POLE
UG	PROPOSED UNDERGROUND ELECTRIC
G	EXISTING GAS LINE
G	PROPOSED GAS LINE
W	EXISTING WATER LINE
W	PROPOSED WATER LINE
FP	PROPOSED FIRE PROTECTION LINE
	EXISTING CATCH BASIN
	PROPOSED CATCH BASIN
	EXISTING DRAINAGE MANHOLE
	PROPOSED DRAINAGE MANHOLE
	EXISTING STORM SEWER
	PROPOSED STORM SEWER
RL	PROPOSED ROOF LEADER
S	EXISTING SANITARY MANHOLE
S	EXISTING SANITARY SEWER
FM	EXISTING SANITARY FORCE MAIN
S	PROPOSED SANITARY SEWER
	EXISTING SIGN
	PROPOSED SIGN
	EXISTING IRON PIN (FOUND)
	PROPOSED IRON PIN (TO BE SET)
	EXISTING MONUMENT (FOUND)
135x5	EXISTING SPOT GRADE
135.5	PROPOSED SPOT GRADE
136	EXISTING CONTOUR
136	PROPOSED CONTOUR
	LIMIT OF WETLANDS
	PROPERTY LINE
	EASEMENT LINE
	BUILDING LINE
	STAKED HAYBALES OR SILT FENCE

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

RUSSO SURVEYORS·ENGINEERS SERVING CT & MA
J.R. Russo & Associates, LLC
1 Shoham Rd East Windsor, CT 06088 • CT 860.633.0569 • MA 413.785.1158
www.jrrusso.com • info@jrrusso.com

Applicant
Vernon Development LLC
56 East Main Street
Avon, Connecticut 06001

REVISIONS		
BY: LF/TAC	CHK: JEU	
3-17-2022	TALCOTTVILLE ROAD ENTRANCE	
2-14-2022	PAGE NUMBERS	

The Learning Experience
Property Of
501 Talcottville Road, LLC
501 Talcottville Road
Vernon, Connecticut 06010
Parcel ID: 09-0007-0001D (Zone: C)

Existing Conditions & Demolition Plan
(ALT 1)

DATE
1-11-22

SCALE
1"=30'

JOB NUMBER
2021-083

SHEET
2 of 12

This survey and map has been prepared in accordance with Sections 20-300b-1 thru 20-300b-20 of the Regulations of Connecticut State Agencies - "Minimum Standards for Surveys and Maps in the State of Connecticut" as endorsed by the Connecticut Association of Land Surveyors, Inc. It is a Property Survey based on a Resurvey conforming to Horizontal Class A-2 & a Topographic Survey conforming to Class T-2.

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TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

S:\Acad\2021 Civil 3D\2021-083 Vernon Development - 501 Talcottville Rd\Russo Drawings\2021-083 A.dwg

RELOCATE UTILITY POLE COORD. W/ SNET & UTILITY COMPANIES

RELOCATE UTILITY POLE COORD. W/ SNET & UTILITY COMPANIES

RELOCATED "SIGNAL AHEAD" SIGN

"DO NOT BLOCK ENTRANCE" SIGN

DART HILL ROAD

PROVIDE CLEAN SAWCUT & TACK COAT EDGES PRIOR TO INSTALLMENT OF NEW PAVEMENT

SIDEWALK RAMP (TYPE 16)

PROP. MAILBOX FINAL LOCATION TO BE DETERMINED W/ USPS

TEMPORARY CONSTRUCTION SIGN, MAX. AREA=32 SF

PROP. 5' CONC. SIDEWALK

352.41'
N85°49'00"E

6" BIT. CONC. LIP CURB, TYP.

PERMANENT MONUMENT SIGN MAX. AREA=80 SF

TERMINATE SIDEWALK AT PROPERTY LINE

12" WIDE STOP BAR, 4" DOUBLE YELLOW CENTERLINE & STOP SIGN (31-0552)

PRE-CAST CONC. CURB ADJACENT TO SIDEWALK, TYP.

PROVIDE CLEAN SAWCUT & CONNECT TO EXIST. SIDEWALK AT PROPERTY LINE

SIDEWALK RAMP (TYPE B)

CANOPY AT ENTRANCE

SIDEWALK LANDING

SIDEWALK RAMP (TYPE 16)

TRANSFORMER

LOADING SPACE

GATE

SIDEWALK RAMP (TYPE A)

BOLLARD MOUNTED STANDARD ADA PARKING SIGN

BOLLARD MOUNTED VAN ACCESSIBLE PARKING SIGNS

BUILDING MOUNTED SIGNAGE (SEE ARCH DWGS)

PROPOSED LOT
I.D. 09-0007-0001E
AREA=87,120 S.F. (2.00± ACRES)

PROP. 1-STORY BUILDING
(10,000 S.F.)
FIN.FL.=221.5

10'X20' DUMPSTER ENCLOSURE

4' HIGH SOLID WHITE PVC FENCE

4' HIGH SOLID WHITE PVC FENCE

81LF RETAINING WALL

PROVIDE CLEAN SAWCUT & CONNECT TO EXIST. SIDEWALK

RAISED ISLAND W/ PEDESTRIAN CUT-THROUGH (SEE DETAIL)

ACCESS & UTILITY EASEMENT IN FAVOR OF PROPOSED LOT
AREA=7,789 S.F. (0.179 AC)

5' WIDE CONC. SIDEWALK

SIDEWALK RAMP (TYPE 16)

PROVIDE CLEAN SAWCUT & TACK COAT EDGES PRIOR TO INSTALLMENT OF NEW PAVEMENT

"NO LEFT TURN" SIGN (31-1603)

"DO NOT ENTER" SIGNS (31-1119)

"NO LEFT TURN" SIGN (31-1603) MOUNTED ON STOP SIGN POST

12" WIDE STOP BAR, 4" DOUBLE YELLOW CENTERLINE & STOP SIGN (31-0552)

SIDEWALK RAMP (TYPE 16)

TERMINATE SIDEWALK

94LF RETAINING WALL

220LF RETAINING WALL

STORMWATER MANAGEMENT BASIN

6' HIGH SOLID WHITE PVC FENCE SURROUNDING PLAYGROUND

PROP. WOOD GUIDE RAIL

PLAYGROUND
4,500 S.F.

CLEARING LIMIT, TYP.

PROPOSED PROPERTY LINE

274.45'
S85°49'00"W

WETLAND CREATION AREA (2,100±)
SEED W/ NEW ENGLAND WETMIX BY NEW ENGLAND WETLAND PLANTS, INC OR APPROVED EQUAL
BOT. ELEV. =210.5

WETLAND ENHANCEMENT PLANTINGS (2,500±)
SEE PLANTING LIST THIS SHEET

100' WETLAND REGULATED AREA

TALCOTTVILLE ROAD (CT ROUTE 83)

N/F
KAO LLC
509 TALCOTTVILLE ROAD
VOL 1802 PC 261

N/F
EUGENE P. & JUDITH S. VEILLETTE
786 DART HILL ROAD
VOL 1233 PC 191

N/F
THOMAS A. & LINDA M. SHIRSHAC
64 WORCESTER ROAD
VOL 266 PC 102

REMAINING LAND OF
N/F
501 TALCOTTVILLE ROAD LLC
501 TALCOTTVILLE ROAD
VOL 2026 PC 51
LOT 09-0007-0001D
AREA=113,818 S.F. (2.61± ACRES)

SMH
TF=223.5
FL=214.39 6" NW
FL=214.95 15" S

SMH
TF=226.15
FL=214.39 8"PVC W
FL=214.95 6"PVC S
FL=219.59 6"PVC N

SMH
TF=222.95
FL=212.35

DMH
TF=223.5
FL=214.39 6" NW
FL=214.95 15" S

DRILL HOLE FOUND

C.H.D. FOUND

REBAR FOUND

I.P. BENT FOUND

C.H.D. D.H. FOUND

8" PVC

6" PVC LATERAL

6" PVC

15" RCP

SNET 1711

SNET 1712

8" CMP
FL=220.98

45.00' ESMT

42.58' ESMT

LEGEND

	EXISTING UTILITY POLE
UG	PROPOSED UNDERGROUND ELECTRIC
G	EXISTING GAS LINE
G	PROPOSED GAS LINE
W	EXISTING WATER LINE
W	PROPOSED WATER LINE
FP	PROPOSED FIRE PROTECTION LINE
	EXISTING CATCH BASIN
	PROPOSED CATCH BASIN
	EXISTING DRAINAGE MANHOLE
	PROPOSED DRAINAGE MANHOLE
	EXISTING STORM SEWER
	PROPOSED STORM SEWER
RL	PROPOSED ROOF LEADER
S	EXISTING SANITARY MANHOLE
FM	EXISTING SANITARY SEWER
FM	EXISTING SANITARY FORCE MAIN
S	PROPOSED SANITARY SEWER
	EXISTING SIGN
	PROPOSED SIGN
	EXISTING IRON PIN (FOUND)
	PROPOSED IRON PIN (TO BE SET)
	EXISTING MONUMENT (FOUND)
135x5	EXISTING SPOT GRADE
135.5	PROPOSED SPOT GRADE
136	EXISTING CONTOUR
136	PROPOSED CONTOUR
	LIMIT OF WETLANDS
	PROPERTY LINE
	EASEMENT LINE
	BUILDING LINE
	STAKED HAYBALES OR SILT FENCE

Reference Maps:

1. "Boundary Survey Prepared for 501 Talcottville Road LLC, 501 Talcottville Road (CT Route 83) & Dart Hill Road, Vernon, Connecticut" Sheet SV.01, Scale: 1"=50' Date: May 2021 by Alfred Benesch & Company.
2. "Topographic Survey Prepared for 501 Talcottville Road LLC, 501 Talcottville Road (CT Route 83) & Dart Hill Road, Vernon, Connecticut" Sheet SV.02Scale: 1"=30' Date: May 2021 by Alfred Benesch & Company.

Notes:

1. Portion of the parcel is located in inland wetlands as delineated by Rema Ecological Services per reference map #2.
2. Proposed lot does not lie within a special flood hazard area per "FEMA flood insurance rate map, town of Vernon, Connecticut community panel number 09013100005C, revised August 9, 1999".
3. Horizontal and vertical datums are based upon map references prepared by Alfred Benesch & Company.
4. All underground utility locations on this plan are approximate and may not be complete. Anyone using this information without verifying the locations does so at their own risk. No construction will be done on this site prior to utility mark out. "Call Before You Dig 1-800-922-4455".
5. Boundary and existing conditions shown hereon are based on map references prepared by Alfred Benesch & Company.
6. Line striping in Talcottville Road (Rte. 83) approximated based on aerial photography.

ZONING INFORMATION (ZONE C)		
ZONING	REQUIRED	PROPOSED
USE	DAY CARE CENTER	DAY CARE CENTER
BUILDING AREA	1,000 S.F.	10,000 S.F.
LOT AREA	22,000 S.F.	87,120 S.F.
LOT WIDTH	100'	352.41'
FRONT YARD	50'	81'
REAR YARD	50'	112.1'±
SIDE YARD	20'	73.9'±
HEIGHT	N/A	26'
PARKING SPACES	57 SPACES	57 SPACES

PROP. BUILDING COVERAGE: 11.5% (10,000 S.F.)
PROP. LOT COVERAGE: 47.6% (41,448 S.F.)

PARKING REQUIREMENTS
DAYCARE: 1 SPACE/1 EMPLOYEE * 26 EMPLOYEES = 26 SPACES
1 SPACE/5 STUDENTS * 153 STUDENTS = 30.6 SPACES

TOTAL SPACES REQUIRED: 57 SPACES
TOTAL SPACES PROVIDED: 57 SPACES (3 HANDICAP ACCESSIBLE)

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

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Applicant
Vernon Development LLC
56 East Main Street
Avon, Connecticut 06001

REVISIONS	
2-14-2022	WETLAND MITIGATION, LEAK-OFF, BASIN OUTLET
3-17-2022	TALCOTTVILLE ROAD ENTRANCE
BY: LF/TAC	CHK: JEU

The Learning Experience
Property Of
501 Talcottville Road, LLC
501 Talcottville Road
Vernon, Connecticut 06010
Parcel ID: 09-0007-0001D (Zone: C)

Layout Plan
(ALT 1)

DATE 1-11-22
SCALE 1"=20'
JOB NUMBER 2021-083
SHEET 3 of 12

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EROSION & SEDIMENT CONTROL PLAN KEY

PS	PERMANENT SEEDING
TS	TEMPORARY SEEDING
CE	CONSTRUCTION ENTRANCE
GSF	GEOTEXTILE SILT FENCE
RR	RIPRAP
OP	OUTLET PROTECTION
IP	INLET PROTECTION

LEGEND

- EXISTING UTILITY POLE
- UG — PROPOSED UNDERGROUND ELECTRIC
- EXISTING GAS LINE
- G — PROPOSED GAS LINE
- EXISTING WATER LINE
- W — PROPOSED WATER LINE
- FP — PROPOSED FIRE PROTECTION LINE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING DRAINAGE MANHOLE
- PROPOSED DRAINAGE MANHOLE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- RL — PROPOSED ROOF LEADER
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY SEWER
- FM — EXISTING SANITARY FORCE MAIN
- S — PROPOSED SANITARY SEWER
- EXISTING SIGN
- PROPOSED SIGN
- EXISTING IRON PIN (FOUND)
- PROPOSED IRON PIN (TO BE SET)
- EXISTING MONUMENT (FOUND)
- 1.35x5 — EXISTING SPOT GRADE
- 135.5 — PROPOSED SPOT GRADE
- 136 — EXISTING CONTOUR
- 136 — PROPOSED CONTOUR
- LIMIT OF WETLANDS
- PROPERTY LINE
- EASEMENT LINE
- BUILDING LINE
- STAKED HAYBALES OR SILT FENCE

DART HILL ROAD

DMH TF=223.5 FL=214.39 6" NW FL=214.95 15" S

6" PVC

DRILL HOLE FOUND

C.H.D. FOUND

SMH TF=222.95 FL=212.35

DMH4 TF=224.30

8" PVC

SMH TF=226.15 FL=214.39 8"PVC W FL=214.95 6"PVC S FL=219.59 6"PVC N

6" PVC LATERAL

C.H.D. FOUND

SNET 1711

SNET 1712

REBAR FOUND

DMH3 TF=221.00

DMH1 TF=220.72

CB2 TF=220.00

DMH2 TF=221.65

CB1 TF=219.60

CB3 TF=220.00

CB4 TF=220.00

AD1 TF=220.50

N/F KAO LLC 509 TALCOTTVILLE ROAD VOL 1802 PG 261

50' FRONT YARD

50' REAR YARD

TRANSFORMER PAD

TEMPORARY TOPSOIL STOCKPILE

DUMPSTER PAD

PROPOSED LOT I.D. 09-0007-0001E AREA=87,120 S.F. (2.00± ACRES)

PROP. 1-STORY BUILDING (10,000 S.F.) FIN.FL.=221.5

PLAYGROUND 4,500 S.F.

81 LF RETAINING WALL

PROTECT EXIST. GAS SERVICE

I.P. BENT FOUND

C.H.D. D.H. FOUND

94 LF RETAINING WALL

PROP. WOOD GUIDE RAIL

220 LF RETAINING WALL

BACK SILT FENCE W/ 1' HIGH WOOD CHIP MOUND, TYP.

INSTALL JUTE NETTING OR TEMPORARY EROSION CONTROL BLANKET ON SLOPES 3:1 OR STEEPER, TYP.

N/F EUGENE P. & JUDITH S. VEILLETTE 786 DART HILL ROAD VOL 1233 PG 191

N/F THOMAS A. & LINDA M. SHIRSHAC 64 WORCESTER ROAD VOL 266 PG 102

STORMWATER MANAGEMENT BASIN BOT. ELEV. =214.0

WETLAND CREATION AREA (2,100±) SEED W/ NEW ENGLAND WETMIX BY NEW ENGLAND WETLAND PLANTS, INC OR APPROVED EQUAL BOT. ELEV. =210.5

WETLAND ENHANCEMENT PLANTINGS (2,500±) SEE PLANTING LIST SHEET 13

100' WETLAND REGULATED AREA

8"CMP FL=220.98

TALCOTTVILLE ROAD (CT ROUTE 83)

REMAINING LAND OF N/F 501 TALCOTTVILLE ROAD LLC 501 TALCOTTVILLE ROAD VOL 2026 PG 51 LOT 09-0007-0001D AREA=113,818 S.F. (2.61± ACRES)

Test Pit Data:
Observed by J.R. Russo & Associates on 12-17-2021

TP 1
0"-12" Topsoil/Organics
12"-20" Brown Fine Sandy Loam
20"-68" Red-Brown, Firm Loamy Sand & Gravel
Water @ 66"
Mottles @ 21"
No Ledge

TP 2
0"-12" Topsoil/Organics
12"-24" Brown Fine Sandy Loam
24"-62" Red-Brown, Firm Loamy Sandy & Gravel
Water @ 60"
Mottles @ 48"
No Ledge

TP 3
0"-12" Topsoil/Organics
12"-30" Brown Fine Sandy Loam
30"-64" Red-Brown, Firm Sand & Gravel
Water @ 60"
Mottles @ 40"
No Ledge

TP 4
0"-8" Topsoil/Organics
8"-24" Brown Fine Sandy Loam
24"-90" Red-Brown Loose Sand & Gravel
No Water
No Mottles
No Ledge

TP 5
0"-6" Topsoil/Organics
6"-18" Brown Fine Sandy Loam
24"-64" Red-Brown Loose Sand & Gravel
No Water
No Mottles
No Ledge

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

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Applicant
Vernon Development LLC
56 East Main Street
Avon, Connecticut 06001

REVISIONS		
BY: LF/TAC	CHK: JEU	
3-17-2022	TALCOTTVILLE ROAD ENTRANCE	
3-01-2022	SHIFT CONSTRUCTION ENTRANCE EAST	
2-14-2022	WETLAND MITIGATION, LEAK-OFF, BASIN OUTLET	

The Learning Experience
Property Of
501 Talcottville Road, LLC
501 Talcottville Road
Vernon, Connecticut 06010
Parcel ID: 09-0007-0001D (Zone: C)

Grading & Erosion & Sediment Control Plan
(ALT 1)

DATE 1-11-22
SCALE 1"=20'
JOB NUMBER 2021-083
SHEET 4 of 12

S:\Acad\2021 Civil 3D\2021-083 Vernon Development - 501 Talcottville Rd\Russo Drawings\2021-083 A.dwg

CONTRACTOR TO PERFORM TEST PIT TO VERIFY LOCATION & ELEVATION OF END OF PIPE, REMOVE HEADWALL & EXTEND PIPE AS NECESSARY TO CONNECT TO DMH

DMH TF=223.5 FL=214.39 6" NW FL=214.95 15" S

6" PVC

DRILL HOLE FOUND

15" RCP

C.H.D. FOUND

DART HILL ROAD

PROP. SUBSURFACE INFILTRATION SYSTEM
5 ROWS X 14 ADS SC740 CHAMBERS
FL=216.25
FL=215.00 (ISOLATOR ROW)
BOT. ELEV.=215.00
BOT. STONE=214.50

SMH TF=226.15 FL=214.39 8"PVC W FL=214.95 6"PVC S FL=219.59 6"PVC N

C.H.D. FOUND

PROP. DMH4 TF=224.30 FL=215.0± (EXIST.)

8'-15" CPEP-S HEADER PIPE S=0.00% FL=216.25

PROP. 25' WIDE DRAINAGE EASEMENT IN FAVOR OF THE TOWN OF VERNON AREA = 1,200 SF

SMH TF=222.95 FL=212.35

8" PVC

6" PVC LATERAL

SNET 1711

SNET 1712

17'-15" CPEP-S HEADER PIPE S=0.00% FL=216.25

33'-10" CPEP-S S=0.61%

REBAR FOUND

PROP. DMH3 TF=221.00 FL=217.60 (WEIR) FL=215.25 (15" E) FL=214.80 (10" N) FL=212.60 (15" S)

66'-15" CPEP-S S=0.00% FL=216.25

PROP. DMH2 TF=221.65 FL=216.73 (SE) FL=216.25 (N) FL=215.00 (W)

TP5

ISOLATOR ROW

54'-15" CPEP-S S=0.51%

50' FRONT YARD

PROP. CB1 W/ TRAP HOOD TF=219.60 FL=216.10

PROP. DMH1 TF=220.72 FL=215.75 (N) FL=215.56 (W) FL=215.00 (E)

3'-15" CPEP-S S=0.00% FL=215.00

PROP. CB2 W/ TRAP HOOD TF=220.00 FL=215.00

N/F KAO LLC 509 TALCOTTVILLE ROAD VOL 1802 PG 261

PROP. AD TF=220.50 FL=217.00

TP4

RIPRAP CHANNEL FROM EXIST. LEAK-OFF TO AREA DRAIN

107'-15" CPEP-S S=0.50%

FL=219.0

61'-6" PVC SDR-35 ROOF LEADER DISCHARGE S=1.31%

FL=219.75

151'-6" PVC SDR-35 ROOF LEADER DISCHARGE S=0.5%

PROP. 1-STORY BUILDING (10,000 S.F.) FIN.FL.=221.5

PROPOSED LOT I.D. 09-0007-0001E AREA=87,120 S.F. (2.00± ACRES)

6"X8" PVC TEE FL=218.20

PROP. CB3 TF=220.00 FL=217.08 FL=216.50

48'-15" CPEPS-S S=0.50%

PROP. CB4 TF=220.00 FL=216.26

INSTALL ELIMINATOR TRAP HOOD ON OUTLET PIPE

113'-15" CPEP-S S=0.53%

8'-6" PVC SDR-35 ROOF LEADER DISCHARGE S=0.63%

151'-6" PVC SDR-35 ROOF LEADER DISCHARGE S=0.5%

FL=218.25

TP3

14'-15" CPEPS-S S=1.86%

I.P. BENT FOUND

N/F EUGENE P. & JUDITH S. VEILLETTE 786 DART HILL ROAD VOL 1233 PG 191

FL=219.0

TYPE A RIPRAP APRON FL=212.0

20'-8" PVC SDR-35 ROOF LEADER DISCHARGE S=5.60%

PLAYGROUND 4,500 S.F.

BOTTOM OUTLET TO ELBOW; FL=217.5

RIPRAP CHANNEL TO BASIN BOTTOM

TP2

FLARED END FL=216.00

N/F THOMAS A. & LINDA M. SHIRSHAC 64 WORCESTER ROAD VOL 266 PG 102

26'-6" PVC SDR-35 S=1.92%

50' REAR YARD

FL=217.0

SEDIMENTARY FOREBAY BOT. ELEV.=214.0

120LF 6"-WIDE TRENCH DRAIN TF=220.95

10' WIDE EMERGENCY SPILLWAY ELEV.=218.5

12" THICK MODIFIED RIPRAP SLOPE PROTECTION AT SPILLWAY EXTENDED 5' BEYOND TOE OF SLOPE

TP1

STORMWATER MANAGEMENT BASIN BOT. ELEV=214.0

STONE FILTER BERM TOP ELEV.= 217.0

8"CMP FL=220.98

8" ELBOW

EXTEND PIPE TO DAYLIGHT W/ 8" PVC

FL=220.7±

28'-10" CPEP-S S=1.07%

4' WIDE BERM TOP ELEV.=219.0

TYPE A RIPRAP APRON FL=212.0

OUTLET STRUCTURE TF=218.50 FL=216.80 (10" ORIFICE) FL=212.30 (10" OUT)

100' WETLAND REGULATED AREA

TALCOTTVILLE ROAD (CT ROUTE 83)

C.H.D. D.H. FOUND

Test Pit Data:
Observed by J.R. Russo & Associates on 12-17-2021

TP 1
0"–12" Topsoil/Organics
12"–20" Brown Fine Sandy Loam
20"–68" Red–Brown, Firm Loamy Sand & Gravel
Water @ 66"
Mottles @ 21"
No Ledge

TP 2
0"–12" Topsoil/Organics
12"–24" Brown Fine Sandy Loam
24"–62" Red–Brown, Firm Loamy Sandy & Gravel
Water @ 60"
Mottles @ 48"
No Ledge

TP 3
0"–12" Topsoil/Organics
12"–30" Brown Fine Sandy Loam
30"–64" Red–Brown, Firm Sand & Gravel
Water @ 60"
Mottles @ 40"
No Ledge

TP 4
0"–8" Topsoil/Organics
8"–24" Brown Fine Sandy Loam
24"–90" Red–Brown Loose Sand & Gravel
No Water
No Mottles
No Ledge

TP 5
0"–6" Topsoil/Organics
6"–18" Brown Fine Sandy Loam
24"–64" Red–Brown Loose Sand & Gravel
No Water
No Mottles
No Ledge

REMAINING LAND OF N/F 501 TALCOTTVILLE ROAD LLC 501 TALCOTTVILLE ROAD VOL 2026 PG 51 LOT 09-0007-0001D AREA=113,818 S.F. (2.61± ACRES)

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

LEGEND

- EXISTING UTILITY POLE
- UG — PROPOSED UNDERGROUND ELECTRIC
- G — EXISTING GAS LINE
- G — PROPOSED GAS LINE
- W — EXISTING WATER LINE
- W — PROPOSED WATER LINE
- FP — PROPOSED FIRE PROTECTION LINE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING DRAINAGE MANHOLE
- PROPOSED DRAINAGE MANHOLE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- RL — PROPOSED ROOF LEADER
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY SEWER
- FM — EXISTING SANITARY FORCE MAIN
- S — PROPOSED SANITARY SEWER
- EXISTING SIGN
- PROPOSED SIGN
- EXISTING IRON PIN (FOUND)
- PROPOSED IRON PIN (TO BE SET)
- EXISTING MONUMENT (FOUND)
- 1.35x5 EXISTING SPOT GRADE
- 135.5 PROPOSED SPOT GRADE
- 1.36 EXISTING CONTOUR
- 136 PROPOSED CONTOUR
- LIMIT OF WETLANDS
- PROPERTY LINE
- EASEMENT LINE
- BUILDING LINE
- STAKED HAYBALES OR SILT FENCE

This survey and map has been prepared in accordance with Sections 20-300b-1 thru 20-300b-20 of the Regulations of Connecticut State Agencies – "Minimum Standards for Surveys and Maps in the State of Connecticut" as endorsed by the Connecticut Association of Land Surveyors, Inc. It is a Property Survey based on a Resurvey conforming to Horizontal Class A-2 & a Topographic Survey conforming to Class T-2.

This document and copies thereof are valid only if they bear the live signature and embossed seal of the designated professional. Unauthorized alterations render any declaration hereon null and void.

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

RUSSO SURVEYORS·ENGINEERS SERVING CT & MA
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www.jrrusso.com • info@jrrusso.com

Applicant
Vernon Development LLC
56 East Main Street
Avon, Connecticut 06001

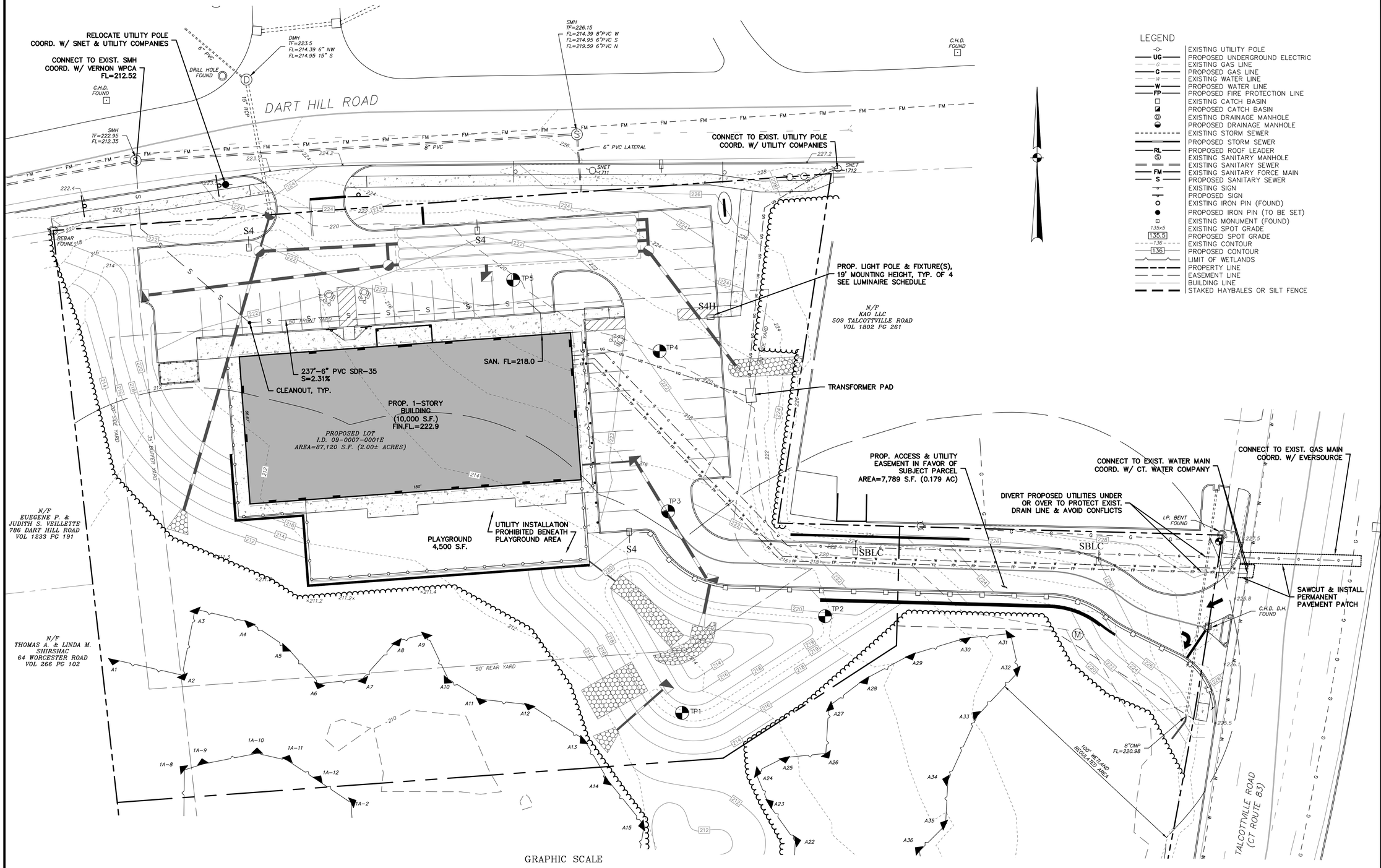
REVISIONS		
2-14-2022	WETLAND MITIGATION, LEAK-OFF, BASIN OUTLET	
3-17-2022	TALCOTTVILLE ROAD ENTRANCE	
BY: LF/TAC	CHK: JEU	

The Learning Experience
Property Of
501 Talcottville Road, LLC
501 Talcottville Road
Vernon, Connecticut 06010
Parcel ID: 09-0007-0001D (Zone: C)

Storm Sewer Plan
(ALT 1)

DATE 1-11-22
SCALE 1"=20'
JOB NUMBER 2021-083
SHEET 5 of 12

S:\Acad\2021 Civil 3D\2021-083 Vernon Development - 501 Talcottville Rd\Russo Drawings\2021-083 A.dwg



LEGEND

- EXISTING UTILITY POLE
- UG — PROPOSED UNDERGROUND ELECTRIC
- G — EXISTING GAS LINE
- G — PROPOSED GAS LINE
- W — EXISTING WATER LINE
- W — PROPOSED WATER LINE
- FP — PROPOSED FIRE PROTECTION LINE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING DRAINAGE MANHOLE
- PROPOSED DRAINAGE MANHOLE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- RL — PROPOSED ROOF LEADER
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY SEWER
- FM — EXISTING SANITARY FORCE MAIN
- S — PROPOSED SANITARY SEWER
- EXISTING SIGN
- PROPOSED SIGN
- EXISTING IRON PIN (FOUND)
- PROPOSED IRON PIN (TO BE SET)
- EXISTING MONUMENT (FOUND)
- 1.35x5 — EXISTING SPOT GRADE
- 135.5 — PROPOSED SPOT GRADE
- 136 — EXISTING CONTOUR
- 136 — PROPOSED CONTOUR
- LIMIT OF WETLANDS
- PROPERTY LINE
- EASEMENT LINE
- BUILDING LINE
- STAKED HAYBALES OR SILT FENCE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

Luminaire Schedule									
Symbol	Qty	Label	Arrangement	Luminaire Lumens	Luminaire Watts	LLF	BUG Rating	Mounting Height	Description
	3	S4	Single	12574	102	0.900	B2-U0-G3	19	Lithonia DSX1 LED P3 40K TFTM MVOLT SPA DBLXD - SSS 18 4C DM19A DBLXD 18FT POLE on 1FT BASE
	1	S4H	Single	11312	125	0.900	B2-U0-G2	19	Lithonia DSX1 LED P4 40K TFTM MVOLT SPA HS DBLXD - SSS 18 4C DM19AS DBLXD 18FT POLE on 1FT BASE
	2	SBLC	Single	7293	70	0.900	B1-U0-G2	19	Lithonia DSX1 LED P2 40K BLC MVOLT SPA DBLXD - SSS 18 4C DM19A DBLXD 18FT POLE on 1FT BASE

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Applicant
Vernon Development LLC
56 East Main Street
Avon, Connecticut 06001

REVISIONS		
3-28-2022	SITE LIGHTING	
3-26-2022	TALCOTTVILLE RD ENTRANCE, APPLY VARIANCES	
2-14-2022	WETLAND MITIGATION, LEAK-OFF, BASIN OUTLET	

BY: LF/TAC | CHK: JEU

The Learning Experience
Property Of
501 Talcottville Road, LLC
501 Talcottville Road
Vernon, Connecticut 06010
Parcel ID: 09-0007-0001D (Zone: C)

Utility Plan
(ALT 2)

DATE
1-11-22

SCALE
1"=20'

JOB NUMBER
2021-083

SHEET
6 of 12

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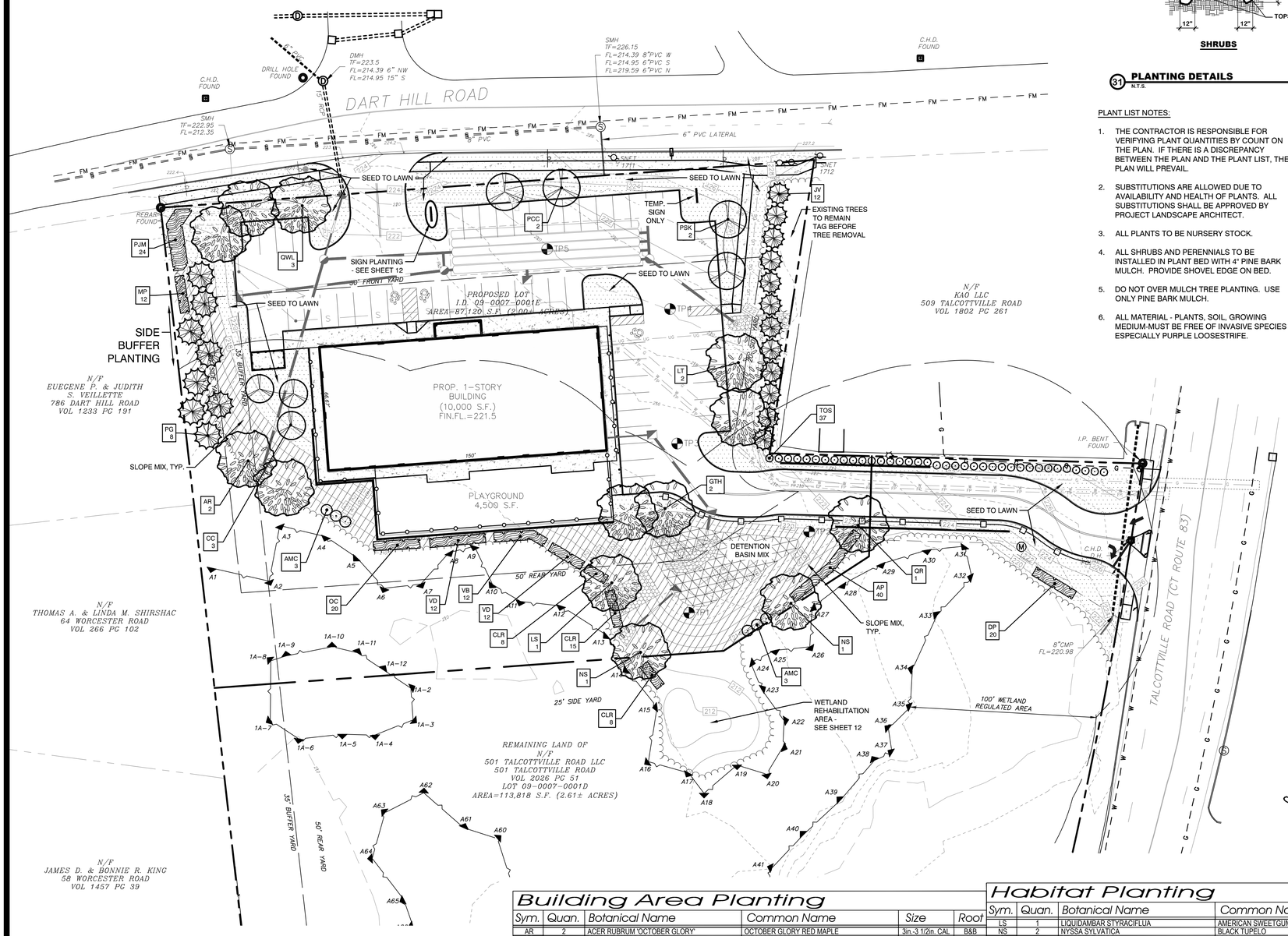


Side Buffer Planting

Sym.	Quan.	Botanical Name	Common Name	Size	Root
PG	8	PICEA GLAUCA	WHITE SPRUCE	5ft.-6ft. Ht.	B&B
MP	12	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	24in.-30in. Ht.	CONT.
PJM	24	RHODODENDRON 'PJM'	PJM RHODODENDRON	24in.-30in. Ht.	CONT.

Building Area Planting

Sym.	Quan.	Botanical Name	Common Name	Size	Root
AR	2	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	3in.-3 1/2in. CAL	B&B
CC	3	CERCIS CANADENSIS	EASTERN REDBUD	2in-2 1/2in. CAL	B&B
GTH	2	GLEDITSIA TRIACANTHOS 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	3in.-3 1/2in. CAL	B&B
JV	12	JUNIPERUS VIRGINIANA 'EMERALD SENTINEL'	EMERALD SENTINEL EASTERN RED-CEDAR	5ft.-6ft. Ht.	B&B
LT	2	LIRIODENDRON TULIPIFERA	TULIPTREE	3in.-3 1/2in. CAL	B&B
PCC	2	PYRUS CALLERYANA 'CHANTICLEER'	ORNAMENTAL PEAR	3in.-3 1/2in. CAL	B&B
PSK	2	PRUNUS SERRULATA 'KWANZAN'	KWANZAN CHERRY	3in.-3 1/2in. CAL	B&B
TOS	37	THUJA OCCIDENTALIS 'NIGRA'	DARK AMERICAN ARBORVITAE	4ft.-5ft. Ht.	B&B
QWL	3	QUERCUS X WAREI 'LONG'	REGAL PRINCE OAK - FASTIGIATE FORM	3in.-3 1/2in. CAL	B&B

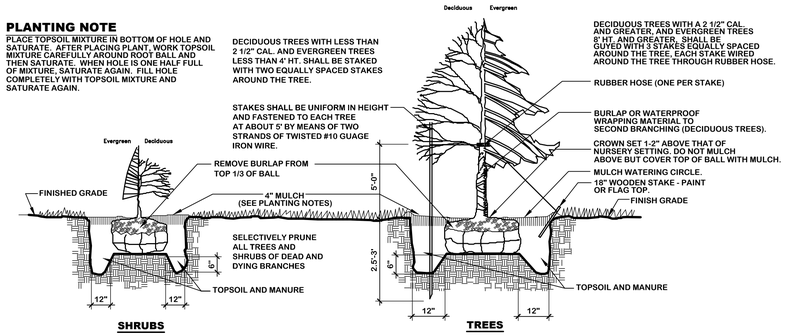
Habitat Planting

Sym.	Quan.	Botanical Name	Common Name	Size	Root
LS	1	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEETGUM	3in.-3 1/2in. CAL	B&B
NS	2	NYSSA SYLVATICA	BLACK TUPELO	3in.-3 1/2in. CAL	B&B
QR	1	QUERCUS RUBRA	RED OAK	2in-2 1/2in. CAL	B&B
AMC	6	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY - MULTISTEM SHRUB FORM	4ft.-5ft.	CONT.
CLR	31	CLETHRA ALNIFOLIA 'RUBY SPICE'	RUBY SPICE SUMMERSWEET	24in.-30in. Ht.	CONT.
VB	12	VIBURNUM X BURKWOODII	BURKWOOD VIBURNUM	24in.-30in. Ht.	CONT.
VD	24	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	24in.-30in. Ht.	CONT.
AP	40	ADIANTUM PEDATUM	MAIDENHAIR FERN		CONT.
DP	20	DENNSTAEDTIA PUNCTILOBULA	HAY SCENTED FERN		CONT.
OC	20	OSMUNDA CINNAMOMEA	CINNAMON FERN		CONT.

PLANTING NOTE

PLACE TOPSOIL MIXTURE IN BOTTOM OF HOLE AND SATURATE. AFTER PLACING PLANT, WORK TOPSOIL MIXTURE CAREFULLY AROUND ROOT BALL AND THEN SATURATE. WHEN HOLE IS ONE HALF FULL OF MIXTURE, SATURATE AGAIN. FILL HOLE COMPLETELY WITH TOPSOIL MIXTURE AND SATURATE AGAIN.

DECIDUOUS TREES WITH LESS THAN 2 1/2" CAL. AND EVERGREEN TREES LESS THAN 4' HT. SHALL BE STAKED WITH TWO EQUALLY SPACED STAKES AROUND THE TREE.



31 PLANTING DETAILS

N.T.S.

PLANT LIST NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING PLANT QUANTITIES BY COUNT ON THE PLAN. IF THERE IS A DISCREPANCY BETWEEN THE PLAN AND THE PLANT LIST, THE PLAN WILL PREVAIL.
2. SUBSTITUTIONS ARE ALLOWED DUE TO AVAILABILITY AND HEALTH OF PLANTS. ALL SUBSTITUTIONS SHALL BE APPROVED BY PROJECT LANDSCAPE ARCHITECT.
3. ALL PLANTS TO BE NURSERY STOCK.
4. ALL SHRUBS AND PERENNIALS TO BE INSTALLED IN PLANT BED WITH 4" PINE BARK MULCH. PROVIDE SHOVEL EDGE ON BED.
5. DO NOT OVER MULCH TREE PLANTING. USE ONLY PINE BARK MULCH.
6. ALL MATERIAL - PLANTS, SOIL, GROWING MEDIUM-MUST BE FREE OF INVASIVE SPECIES - ESPECIALLY PURPLE LOOSESTRIFE.

SEEDING OPERATIONS

A. FERTILIZER AND LIMESTONE

CONTRACTOR SHALL CONDUCT APPROPRIATE SOIL TESTS TO DETERMINE AMOUNT OF FERTILIZER AND LIMESTONE REQUIRED TO ENSURE AN ACCEPTABLE LAWN.
GROUND LIMESTONE: 100LBS/1000S.F.
COMMERCIAL FERTILIZER: * 20LBS/1000S.F.

*PERCENTAGES OF NITROGEN, PHOSPHORIC ACID AND POTASH TO BE DETERMINED BY SOIL TESTS.

B. LAWN SEED

SEED MIXTURE FOR: LATE SUMMER / EARLY FALL / EARLY SPRING PLANTING. SOW AT RATE OF 4 LBS/1000 S.F.

CREEPING RED FESCUE	35 PARTS
CHEWINGS RED FESCUE	20 PARTS
KENTUCKY 31 TALL FESCUE	15 PARTS
ROUGH BLUEGRASS	10 PARTS
BARON BLUEGRASS	20 PARTS

SEED MIXTURE FOR PLANTING MAY 1 TO LATE SUMMER. SOW AT A RATE OF 6 LBS/1000 S.F.

CREEPING RED FESCUE	35 PARTS
CHEWINGS RED FESCUE	20 PARTS
KENTUCKY 31 TALL FESCUE	20 PARTS
DOMESTIC RYEGRASS	25 PARTS

C. SLOPE MIX

SOW AT RATE OF 6 LBS/1000 S.F.

CREEPING RED FESCUE	42 PARTS
FIESTA II PERENNIAL RYEGRASS	34 PARTS
RED TOP	8 PARTS
ALSIKE CLOVER	8 PARTS
BIRDSFOOT TREFOIL	8 PARTS

D. DETENTION BASIN MIX

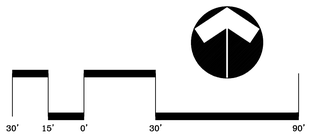
USE "RETENTION BASIN FLOOR SEED" FROM NEW ENGLAND SEED CO. AT A RATE OF 2LB./1000 S.F. MIX WITH ANNUAL RYEGRASS AT A RATE OF 1/2LB./1000 S.F.

E. MEADOW MIX

USE NEW ENGLAND SEED CO. "NEW ENGLAND HORSE PASTURE MIXTURE" AT A RATE OF 100 LB./ACRE. MIX WITH VERMONT WILDFLOWER FARM [(802) 425-3500] DROUGHT TOLERANT PERENNIAL MIX AT A RATE OF 51 LB./ACRE. MIX WITH 20% ADDITIONAL COMMON TALL FESCUE.

33 SEEDING OPERATIONS & MIXES

N.T.S.



LEGEND

- PROPERTY LINE
- WETLAND LINE
- 100' UPLAND REVIEW AREA
- PROPOSED DECIDUOUS TREE
- PROPOSED FLOWERING TREE
- PROPOSED EVERGREEN TREE
- PROPOSED SHRUB
- PLANT LABEL & COUNT (ZZ 1)
- EXISTING TREELINE
- DETENTION BASIN MIX
- LAWN SEED MIX
- SLOPE MIX
- MEADOW MIX

STATE OF CONNECTICUT — BRI-ANN P. FALL — NO. 593 — REGISTERED LANDSCAPE ARCHITECT

RUSSO SURVEYORS • ENGINEERS SERVING CT & MA
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10 Water Street, Simsbury, CT 06070 (860) 651-4971
Brewster, NY 10509 (845) 278-7424
Email: lada@ladapc.net

REVISIONS

BY: DFM	CHK: TPH

The Learning Experience
Property Of
501 Talcottville Road, LLC
501 Talcottville Road
Vernon, Connecticut 06010
Parcel ID: 09-0007-0001D (Zone: C)

Planting Plan

DATE 04-06-2022
SCALE 1"=30'
JOB NUMBER 2021-083
SHEET 7 of 12

PERMANENT SEEDING (PS)

SPECIFICATIONS

Time Of Year

Seeding dates in Connecticut are normally April 1 through June 15 and August 15 through October 1. Spring seedings give the best results and spring seedings of all mixes with legumes is recommended. There are two exceptions to the above dates. The first exception is when seedings will be made in the areas of Connecticut known as the Coastal Slope and the Connecticut River Valley. The Coastal Slope includes the coastal towns of New London, Middlesex, New Haven, and Fairfield counties. In these areas, with the exception of crown vetch (when crown vetch is seeded in late summer, at least 35% of the seed should be hard seed (unscarified), the final fall seeding dates can be extended and additional 15 days. The second exception is frost crack or dormant seeding, the seed is applied during the time of year when no germination can be expected, normally November through February. Germination will take place when weather conditions improve, mulching is extremely important to protect the seed from wind and surface erosion and to provide erosion protection until the seeding becomes established.

Site Preparation

Grade in accordance with the Land Grading measure which is in the Connecticut Guidelines For Soil Erosion and Sediment Control latest edition.

Install all necessary surface water controls.

For areas to be mowed remove all surface stones 2 inches or larger. Remove all other debris such as wire, cable tree roots, pieces of concrete, clods, lumps, or other unsuitable material.

Seed Selection

Lawn Areas: Premium Seed Mix for Sun and Shade.
Stormwater Basin: New England Erosion Control/Restoration Mix by New England Wetland Plants, Inc. or approved equal.

Seedbed Preparation

Apply topsoil, if necessary, in accordance with the Topsoiling measure which is in the Connecticut Guidelines For Soil Erosion and Sediment Control latest edition.

Apply ground limestone and fertilizer according to soil test recommendations (such as those offered by the University of Connecticut Soil Testing Laboratory or other reliable source).

Where soil testing is not feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 300 pounds per acre or 7.5 pounds per 1,000 square feet of 10–10–10 or equivalent and limestone at 4 tons per acre or 200 pounds per 1,000 square feet.

Work lime and fertilizer into the soil to a depth of 3 to 4 inches with a disc or other suitable equipment.

Inspect seedbed just before seeding. If the soil is compacted, crusted or hardened, scarify the area prior to seeding.

Seed Application

Apply selected seed at rates per manufacturer's recommendations uniformly by hand, cyclone seeder, drill, cultipacker type seeder or hydroseeder (slurry including seed, fertilizer). Normal seeding depth is from 0.25 to 0.5 inch. Increase seeding rates by 10% when hydroseeding or frost crack seeding. Seed warm season grasses during the spring period only.

Mulching

See guidelines in the Mulch For Seed measures.

MAINTENANCE

Inspect temporary soil protection area at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater during the first growing season.

Where seed has been moved or where soil erosion has occurred, determine the cause of the failure and repair as needed.

TEMPORARY SEEDING (TS)

SPECIFICATIONS

Site Preparation

Install needed erosion control measures such as diversions, grade stabilization structures, sedimentation basins and grassed waterways in accordance with the approved plan.

Grade according to plans and allow for the use of appropriate equipment for seedbed preparation, seeding, mulch application and mulch anchoring.

Seedbed Preparation

Loosen the soil to a depth of 3–4 inches with a slightly roughened surface. If the area has been recently loosened or disturbed, no further roughening is required. Soil preparation can be accomplished by tracking with a bulldozer, discing harrowing, raking or dragging with a section of chain link fence.

Apply ground limestone and fertilizer according to soil test recommendations (such as those offered by the University of Connecticut Soil Testing Laboratory or other reliable source).

If soil testing is not feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 300 pounds per acre or 7.5 pounds per 1,000 square feet of 10–10–10 or equivalent.

Seeding

Apply seed uniformly by hand, cyclone seeder, drill, cultipacker type seeder or hydroseeder. The temporary seed shall be Rye (grain) applied at a rate of 120 pounds per acre. Increase seeding rates by 10% when hydroseeding.

Mulching

See guidelines in the Mulch For Seed measures.

MAINTENANCE

Inspect temporary seeding area at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater for seed and mulch movement and rill erosion.

Where seed has been moved or where soil erosion has occurred, determine the cause of the failure and repair as needed.

MULCH FOR SEED (MS)

SPECIFICATIONS

Materials

Types of Mulches *within this specification include, but are not limited to:*

1. Hay: *The dried stems and leafy parts of plants cut and harvested, such as alfalfa, clovers, other forage legumes and the finer stemmed, leafy grasses. The average stem length should not be less than 4 inches. Hay that can be windblown should be anchored to hold it in place.*

2. Straw: *Cut and dried stems of herbaceous plants, such as wheat, barley, cereal rye, or brome. The average stem length should not be less than 4 inches. Straw that can be windblown should be anchored to hold it in place.*

3. Cellulose Fiber: *Fiber origin is either virgin wood, post–industrial/pre–consumer wood or post consumer wood complying with materials specification (collectively referred to as "wood fiber"), newspaper, kraft paper, cardboard (collectively referred to as "paper fiber") or a combination of wood and paper fiber. Paper fiber, in particular, shall not contain boron, which inhibits seed germination. The cellulose fiber must be manufactured in such a manner that after the addition and agitation in slurry tanks with water, the fibers in the slurry become uniformly suspended to form a homogeneous product. Subsequent to hydraulic spraying on the ground, the mulch shall allow for the absorption and percolation of moisture and shall not form a tough crust such that it interferes with seed germination or growth. Generally applied with tackifier and fertilizer. Refer to manufacturer's specifications for application rates needed to attain 80%–95% coverage without interfering with seed germination or plant growth. Not recommended as a mulch for use when seeding occurs outside of the recommended seeding dates.*

Tackifiers *within this specification include, but are not limited to: Water soluble materials that cause mulch particles to adhere to one another, generally consisting of either a natural vegetable gum blended with gelling and hardening agents or a blend of hydrophilic polymers, resins, viscosifiers, sticking aids and gums. Good for areas intended to be mowed. Cellulose fiber mulch may be applied as a tackifier to other mulches, provided the application is sufficient to cause the other mulches to adhere to one another.* ***Emulsified asphalts are specifically prohibited for use as tackifiers due to their potential for causing water pollution following its application.***

Nettings *within this specification include, but are not limited to: Prefabricated openwork fabrics made of cellulose cords, ropes, threads, or biodegradable synthetic material that is woven, knotted or molded in such a manner that it holds mulch in place until vegetation growth is sufficient to stabilize the soil. Generally used in areas where no mowing is planned.*

Site Preparation

Grade according to plans and allow for the use of appropriate equipment for seedbed preparation, seeding, mulch application and mulch anchoring.

Application

Timing: *Applied immediately following seeding. Some cellulose fiber may be applied with seed to assist in marking where seed has been sprayed, but expect to apply a second application of cellulose fiber to meet the requirements of* ***Mulch For Seed*** *in the Connecticut Guidelines For Soil Erosion and Sediment Control latest edition.*

Spreading: *Mulch material shall be spread uniformly by hand or machine resulting in 80%–95% coverage of the disturbed soil when seeding within the recommended seeding dates. Applications that are uneven can result in excessive mulch smothering the germinating seeds. For hay or straw anticipate an application rate of 2 tons per acre. For cellulose fiber follow manufacture's recommended application rates to provided 80%–95% coverage.*

When seeding outside the recommended seeding dates, increase mulch application rate to provide between 95%–100% coverage of the disturbed soil. For hay or straw anticipate an application rate to 2.5 to 3 tons per acre.

When spreading hay mulch by hand, divide the area to be mulched into approximately 1,000 square feet and place 1.5–2 bales of hay in each section to facilitate uniform distribution.

For cellulose fiber mulch, expect several spray passes to attain adequate coverage, to eliminate shadowing, and to avoid slippage.

Anchoring: *Expect the need for mulch anchoring along the shoulders of actively traveled roads, hill tops and long open slopes not protected by wind breaks.*

When using netting, the most critical aspect is to ensure that the netting maintains substantial contact with the underlying mulch and the mulch, in turn, maintains continuos contact with the soil surface. Without such contact, the material is useless and erosion can be expected to occur.

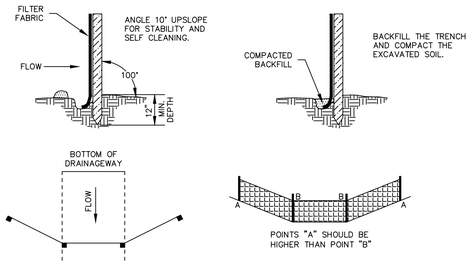
MAINTENANCE

Inspect mulch for seed area at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater until the grass has germinated to determine maintenance needs.

Where mulch has been moved or where soil erosion has occurred, determine the cause of the failure and repair as needed.

SOIL ERSOION & SEDIMENT CONTROL NOTES

1. *The contractor/developer shall notify the Town Staff prior to construction in accordance with the local approvals and permits.*
2. *All soil erosion and sediment control work shall be done in strict accordance with the Connecticut Guidelines For Soil Erosion and Sediment Control latest edition.*
3. *Any additional erosion/sediment control deemed necessary by the engineer during construction, shall be installed by the developer. In addition, the developer shall be responsible for the repair/replacement and/or maintenance of all erosion control measures until all disturbed areas are stabilized to the satisfaction of the town staff.*
4. *All soil erosion and sediment control operations shall be in place prior to any grading operations and installation of proposed structures or utilities and shall be left in place until construction is completed and/or area is stabilized.*
5. *In all areas, removal of trees, bushes and other vegetation as well as disturbance of the soil is to be kept to an absolute minimum while allowing proper development of the site. During construction, expose as small an area of soil as possible for as short a time as possible.*
6. *The developer shall practice effective dust control per the soil conservation service handbook during construction and until all areas are stabilized or surface treated. The developer shall be responsible for the cleaning of nearby streets of any debris from these construction activities.*
7. *All fill areas shall be compacted sufficiently for their intended purpose and as required to reduce slipping, erosion or excess saturation. Fill intended to support buildings, structures, conduits, etc., shall be compacted in accordance with local requirements or codes.*
8. *Topsoil is to be stripped and stockpiled in amounts necessary to complete finished grading of all exposed areas requiring topsoil. The stockpiled topsoil is to be located as designated on the plans. Topsoil shall not be placed while in a frozen or muddy condition, when the subgrade is excessively wet, or in a condition that may otherwise be detrimental to proper grading or proposed sodding or seeding.*
9. *Any and all fill material is to be free of brush, rubbish, timber, logs vegetative matter and stumps in amounts that will be detrimental to constructing stable fills. Maximum side slopes of exposed surfaces of earth to be 3:1 or as otherwise specified by local authorities.*
10. *Soil stabilization should be completed within 5 days of clearing or inactivity in construction.*
11. *Waste Materials – All waste materials (including wastewater) shall be disposed of in accordance with local, state and federal law. Litter shall be picked up at the end of each work day.*
12. *The Contractor shall maintain on–site additional erosion control materials as a contingency in the event of a failure or when required to shore up existing BMPs. At a minimum, the on–site contingency materials should include 30 feet of silt fence and 5 straw haybales with 10 stakes.*

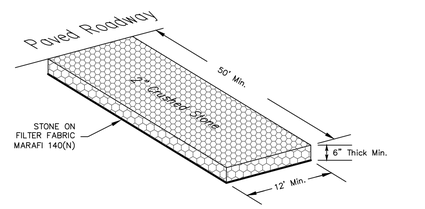


PLAN VIEW ELEVATION

SOURCE: U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, STORRS, CONNECTICUT

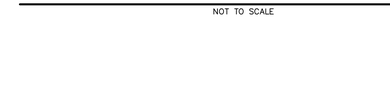
GEOTEXTILE SILT FENCE (GSF)

NOT TO SCALE



ANTI-TRACKING EXIT PAD DETAIL (CE)

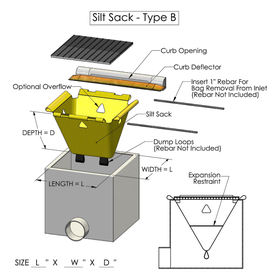
NOT TO SCALE



NOTE: MAY BE USED AS ALTERNATIVE TO GEOTEXTILE SILT FENCE.

PERIMETER SEDIMENT BARRIER

NOT TO SCALE



ACF ENVIRONMENTAL
2831 Cardwell Road
Richmond, VA 23234
WWW.ACFENVIRONMENTAL.COM

NOTE:
SILT SACK SHALL BE SIZED TO FIT EACH INLET GRATE (SINGLE OR DOUBLE) AND SHALL BE CLEANED AND MAINTAINED UNTIL THE CONTRIBUTING WATERSHED IS STABILIZED WITH VEGETATION AND/OR COMPACTED PROCESSED STONE BASE.

CB GRATE INLET PROTECTION (SILT SACK)

NOT TO SCALE

CHECKLIST FOR EROSION CONTROL PLAN

PROJECT: The Learning Experience Academy of Education

LOCATION: 501 Talcottville Road, Vernon, CT

PROJECT DESCRIPTION: Construction of a Daycare Facility

PARCEL AREA: 2.0 acres

RESPONSIBLE PERSONNEL: Eric Spungin (860) 989–9494

EROSION AND SEDIMENT CONTROL PLAN PREPARER: J.R. Russo & Associates, LLC

CHECKLIST:

Work Description Erosion & Sediment Control Measures	Location	Date Installed	Initials	Date Removed	Initials
Install construction entrance	As shown on plan.				
Install perimeter sediment barriers	As shown on plan.				
Install inlet protection at CBs	As installed				

MAINTENANCE OF MEASURES:

Location	Description or Number	Date	Initials

Project Dates:

Date of groundbreaking for project:

Date of final stabilization:

PROJECT NARRATIVE AND CONSTRUCTION SEQUENCE

This project is located at 501 Talcottville Road in Vernon, Connecticut. The proposed activity is the construction of a 10,000 square foot daycare facility. The suggested schedule of construction is as follows:

1. Install construction anti–tracking pad (CE).
2. Install sediment barriers (GSF) at project perimeters.
3. Strip topsoil. Stockpile suitable amount of topsoil for reuse on–site in areas shown. Stockpiles shall be surrounded by sediment barriers (GSF).
4. Install retaining walls. Place and compact fill to establish subgrades coincident with retaining wall construction.
5. Begin building construction.
6. Construction stormwater management basin, excavate wetland creation area, and install drainage. Seed basin and wetland creation areas as soon as practicable.
7. Install other site utilities.
8. Install parking lot and driveway base.
9. Install concrete sidewalks and dumpster pad.
10. Pave binder course.
11. Stabilize remaining areas to receive topsoil and permanently seed as soon as possible.
12. Install landscaping & wetland enhancement plantings.
13. Install pavement top course in all areas. Sweep binder course and apply tack coat prior to placing pavement top course.
14. Apply paint striping.
15. Remove sediment barriers after site is fully stabilized.

Construction of this site is anticipated to begin in the spring of 2022 and be complete by January 2023, pending approvals. Temporary erosion control measures shall be installed prior to any soil disturbance and maintained throughout construction until soils have been stabilized with permanent vegetation.

The Contractor shall keep the area of disturbance to a minimum and establish vegetative cover on exposed soils as soon as practical. All soil and erosion control measures shall be installed and maintained in accordance with these plans and the "Connecticut DEP Guidelines for Soil Erosion and Sediment Control", as amended. The Contractor shall verify all conditions noted on the plans and shall immediately notify the Engineer of any discrepancies.

The developer shall be responsible for the repair/replacement/maintenance of all erosion control measures until all disturbed areas are stabilized. Accumulated sediment shall be removed as required to keep silt fence functional. In all cases, deposits shall be removed when the accumulated sediment has reached one–half above the ground height of the silt fence. This material is to be spread and stabilized in areas not subject to erosion, or to be used in areas which are not to be paved or built on. Silt fence (GSF) is to be replaced as necessary to maintain proper filtering action. Silt fence (GSF) are to remain in place and shall be maintained to insure efficient sediment capture until all areas above the erosion checks are stabilized and vegetation has been established.

POST CONSTRUCTION MAINTENANCE NOTES:

The property owner shall be responsible for performing the following post construction maintenance schedule:

1. Maintain lawn & landscape areas with minimal pesticides.
2. Sweep parking lot and paved areas at least once per year in the spring.
3. Inspect catch basins and storm manholes at least twice per year, including after sweeping. Clean at least once per year in April and as necessary to prevent the discharge of pollutants from structures. Remove accumulated oil, trash and excessive sediment with vac–truck. Check condition of hoods (if applicable).
4. Inspect infiltration basin annually for evidence of hydrocarbons and remove by vac–truck. Repair eroded areas and replace riprap and vegetation as required. Dredge bottom of forebay to remove accumulated sediment every 10 years or when significant volume reduction is observed. Mow infiltration basin on a regular basis to maintain as lawn area for filtering of pollutants. Inspect inlet pipes monthly and remove trash and debris as needed.

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Applicant
Vernon Development LLC
56 East Main Street
Avon, Connecticut 06001

REVISIONS		
2–14–2022	PAGE NUMBERS	
3–17–2022	TALCOTTVILLE ROAD ENTRANCE	
BY: LF/TAC	CHK: JEU	

The Learning Experience
Property Of
501 Talcottville Road, LLC
501 Talcottville Road
Vernon, Connecticut 06010
Parcel ID: 09–0007–0001D (Zone: C)

Erosion & Sediment Control Notes
(ALT 1)

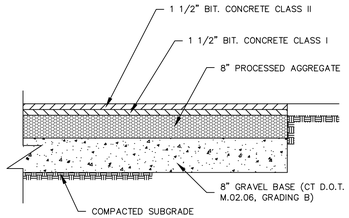
DATE
1–11–22

SCALE
1"=20'

JOB NUMBER
2021–083

SHEET
8 of 12

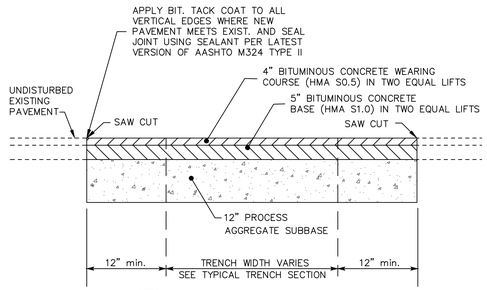
S:\Acad\2021 Civil 3D\2021-083 Vernon Development - 501 Talcottville Rd\Russo Drawings\2021-083 A.dwg



NOTE: WHERE SUBGRADES ARE ON WET SILT OR CLAY, CONTRACTOR TO INSTALL ADDITIONAL 12" OF 3/4" CRUSHED STONE ON TENSAR TRIAX GEOGRID BELOW GRAVEL SUBBASE.

PAVEMENT DETAIL

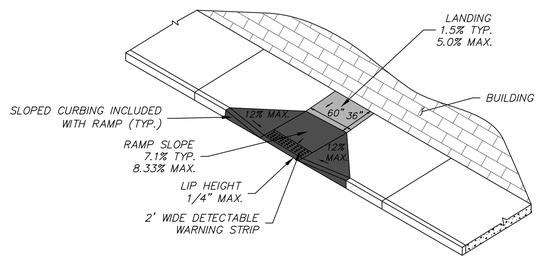
NOT TO SCALE



NOTES:
1. All saw cut and sealed joints to be wither parallel with, or perpendicular to, the center-line of the pipe.
2. All materials are to meet Conn. D.O.T. Form 817, latest edition.
3. Pavement materials shall be provided by the same vendor.

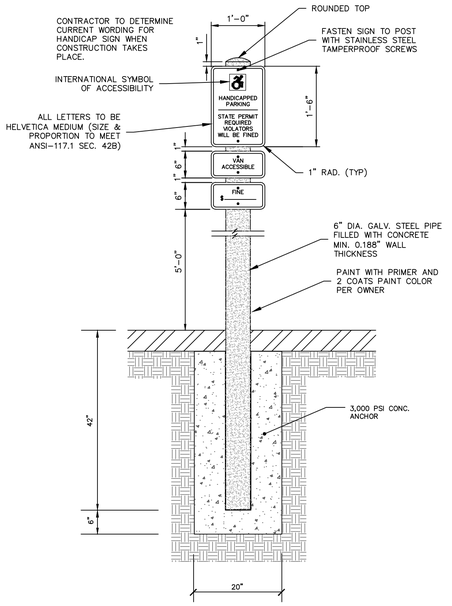
PERMANENT PAVEMENT PATCH (STATE HIGHWAY)

NOT TO SCALE



SIDEWALK RAMP (TYPE A)

NOT TO SCALE



HANDICAP SIGN & BOLLARD

NOT TO SCALE

BITUMINOUS CONCRETE LIP CURBING

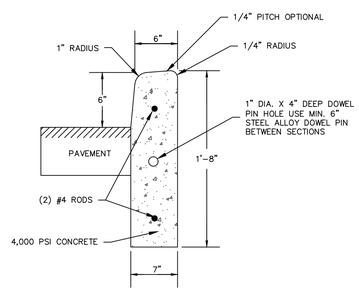
NOT TO SCALE

PERMANENT PAVEMENT PATCH (STATE HIGHWAY)

NOT TO SCALE

SIDEWALK RAMP (TYPE B)

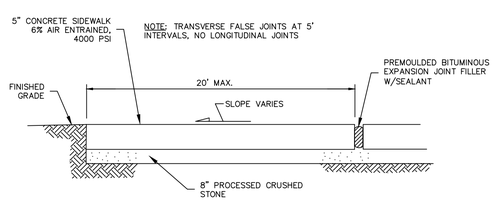
NOT TO SCALE



NOTE:
1. SPACE JOINTS 10'±, BUT NO LESS THAN 6'.

PRE-CAST CONCRETE CURB

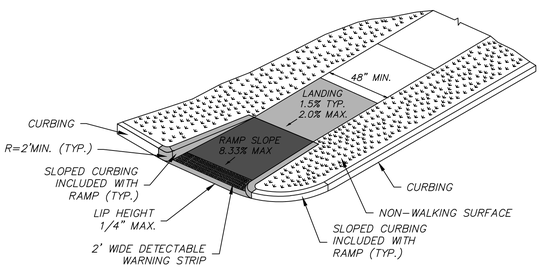
NOT TO SCALE



NOTE: EXPANSION JOINTS TO BE PLACED BETWEEN ADJACENT SLABS, AT BUILDING LINE, AT CURBS, OR AT PENETRATING STRUCTURES.

TYPICAL SIDEWALK DETAIL

NOT TO SCALE



SINGLE DIRECTION - RETURN CURB WITH NON-WALKING SURFACE

DOT SIDEWALK RAMP (TYPE I6)

NOT TO SCALE

POLE MOUNTED EXTERIOR LIGHT

NOT TO SCALE

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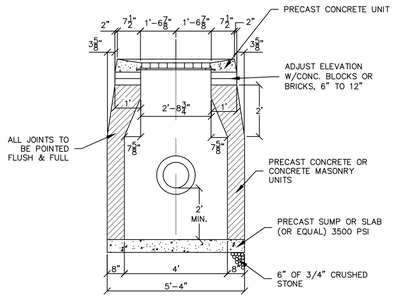
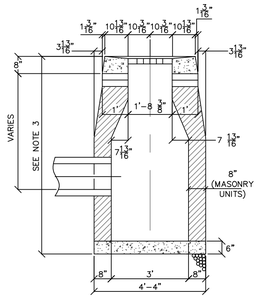


FRONT ELEVATION

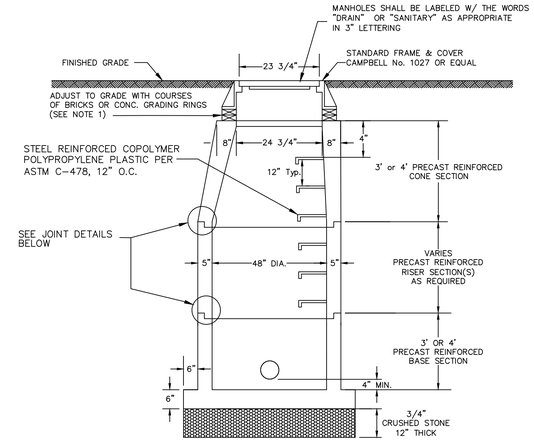


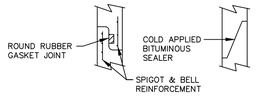
SIDE ELEVATION

NOTES:
1. MINIMUM COVER OVER TOP OF PIPE SHALL BE 1'-0".
2. WALL THICKNESS SHALL BE SUFFICIENT TO MEET HS 20 LOADING.
3. WALL THICKNESS FOR STRUCTURES OVER 10' HIGH IS 12" FOR CONCRETE BLOCK UNITS, INSIDE DIMENSIONS REMAIN THE SAME.
4. ALL PIPES SHALL BE CUT FLUSH WITH INSIDE WALLS.
5. ALL BRICKS SHALL BE CONCRETE.

TYPE "CL" CATCH BASIN

NOT TO SCALE





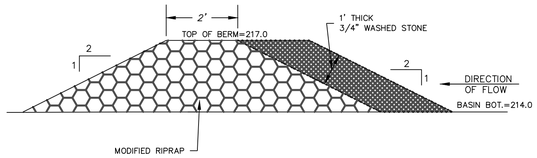
GASKET JOINT N.T.S.

ALTERNATE JOINT N.T.S.

NOTES:
1. MINIMUM COVER OVER TOP OF PIPE SHALL BE 2'-0" UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. TOP STEP TO BE A MAXIMUM OF 24" BELOW TOP OF MANHOLE FRAME & COVER.
3. WALL THICKNESS SHALL BE SUFFICIENT TO MEET HS 20 LOADING.
4. MANHOLE INSIDE DIAMETER MAY BE INCREASED AS DIRECTED BY THE ENGINEER TO ACCOMMODATE SIZE AND NUMBER OF PIPES. INCREASE WALL THICKNESS 1" FOR EACH 1 FT. OF INSIDE DIAMETER INCREASE.
5. FOR SHALLOW STRUCTURES, USE 8" SLAB IN PLACE OF CONE SECTION.
6. ALL PIPES SHALL BE CUT FLUSH WITH INSIDE WALLS.
7. FILL LIFTING HOLES WITH MORTAR.

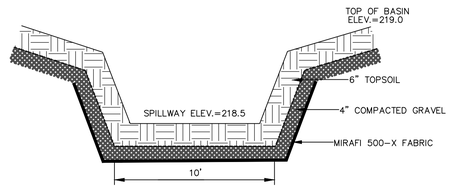
PRECAST CONCRETE MANHOLE

NOT TO SCALE



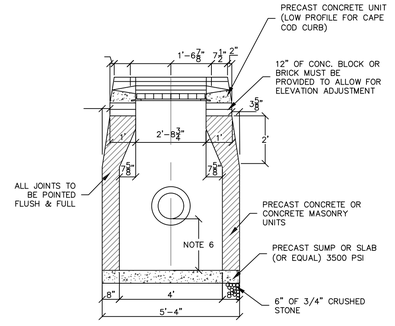
STONE FILTER BERM

NOT TO SCALE

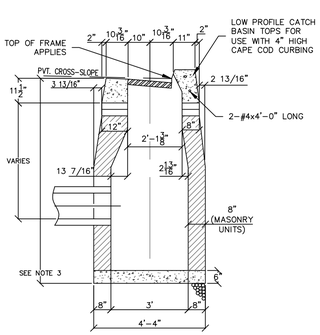


EARTHEN SPILLWAY

NOT TO SCALE



FRONT ELEVATION

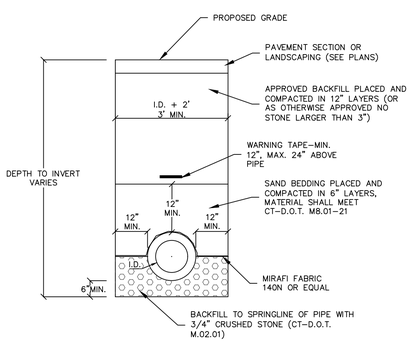


SIDE ELEVATION

NOTES:
1. MINIMUM COVER OVER TOP OF PIPE SHALL BE 2'-0".
2. WALL THICKNESS SHALL BE SUFFICIENT TO MEET HS 20 LOADING.
3. WALL THICKNESS FOR STRUCTURES OVER 10' HIGH IS 12" FOR CONCRETE BLOCK UNITS, INSIDE DIMENSIONS REMAIN THE SAME.
4. ALL PIPES SHALL BE CUT FLUSH WITH INSIDE WALLS.
5. ALL BRICKS SHALL BE CONCRETE.
6. ALL CATCH BASIN SUMPS SHALL BE MIN. 2' BELOW THE OUTLET INVERT WITH THE EXCEPTION OF CB6 WHICH SHALL HAVE A 4' SUMP.

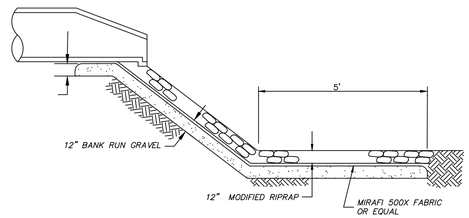
TYPE "C" CATCH BASIN

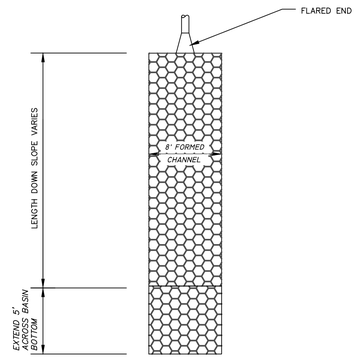
NOT TO SCALE



STANDARD STORM DRAIN DETAIL

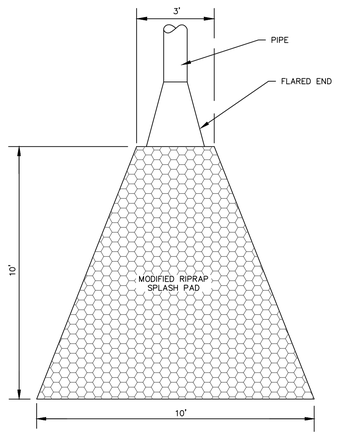
NOT TO SCALE





CHANNEL INTO STORMWATER BASIN

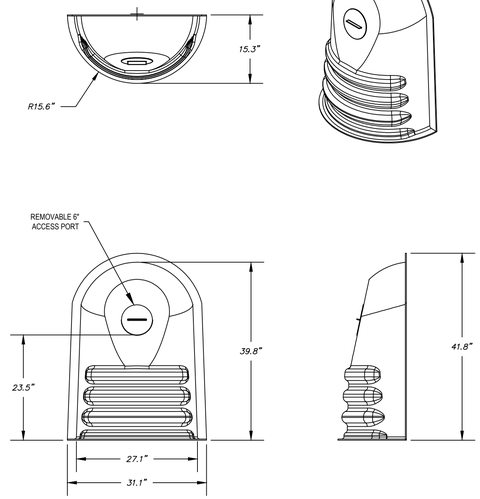
NOT TO SCALE



NOTE:
MODIFIED RIPRAP APRON (12" THICK) ON 6" GRANULAR BASE (M.02.01) ON MIRAFI 140N FABRIC OR EQUAL

TYPE A RIPRAP APRON (OP)

N.T.S.



NOTES:
1. HIGH DENSITY POLYETHYLENE NYROPLAST ENVIROHOOD MODEL 24F FOR FLAT CONCRETE STRUCTURES.
2. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

NYROPLAST ENVIROHOOD DETAIL

NOT TO SCALE

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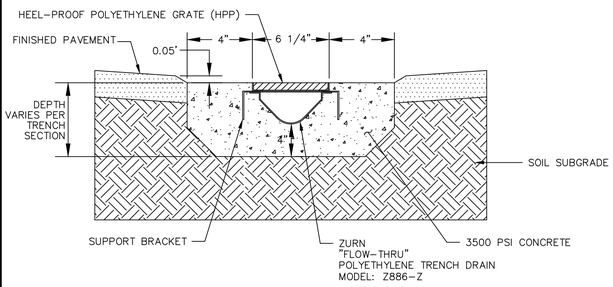
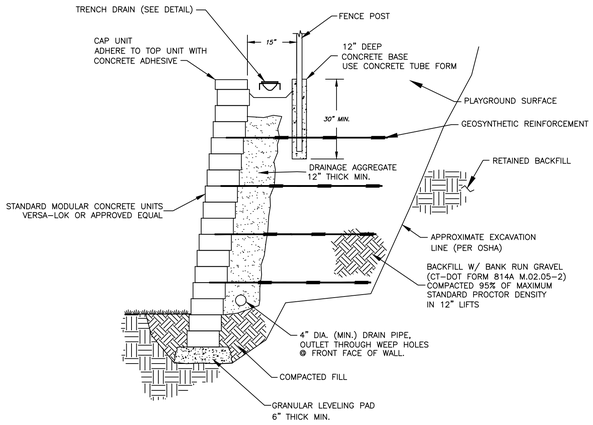


NOTE:
1. USE CHANNELS NO. 8601 – 8615 FOR 120' TRENCH LENGTH
2. CONNECT TRENCH TO OUTLET PIPE WITH U6 OUTLET ADAPTER AND 6" SCH40 PVC WITH 90° BEND.
3. SET CONCRETE, FRAME & GRATE SYSTEM 0.05' BELOW FINISHED PAVEMENT GRADE, AS SHOWN ABOVE.

TRENCH DRAIN DETAIL

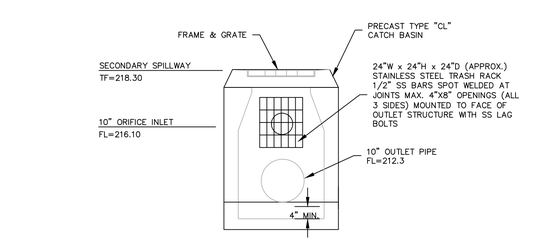
NOT TO SCALE



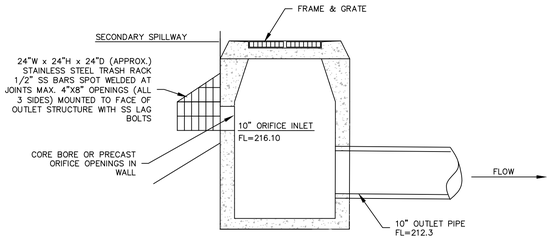
NOTE: CONTRACTOR TO OBTAIN FINAL WALL DESIGN PLANS PREPARED BY PROFESSIONAL ENGINEER LICENSED IN CT. FINAL SHOP DRAWINGS TO BE SUBMITTED TO SITE ENGINEER FOR APPROVAL.

TYPICAL SECTION REINFORCED RETAINING WALL

NOT TO SCALE



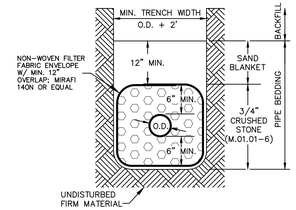
FRONT VIEW



SIDE SECTION VIEW

BASIN OUTLET STRUCTURE

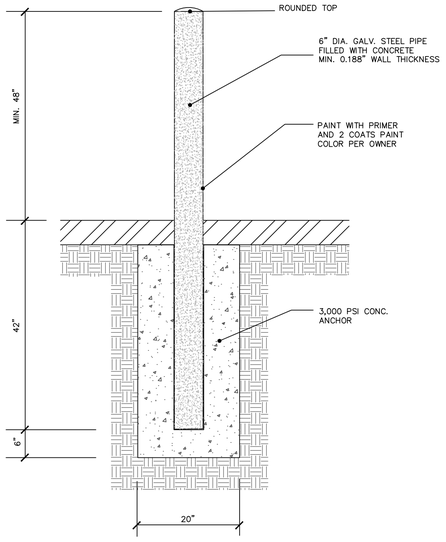
NOT TO SCALE



NOTES:
1. PROVIDE WARNING TAPE, 12-24" ABOVE TOP OF PIPE.
2. BACKFILL SHALL BE SUITABLE NATIVE MATERIAL UNLESS DETERMINED TO BE UNSUITABLE BY THE ENGINEER OR GRANULAR FILL M.02.01 PLACED AND COMPACTED IN 12" LOOSE LIFTS.
3. UNDER PAVED AREAS COMPACT BACKFILL TO 95% OF THE MATERIAL'S MAXIMUM DRY DENSITY AS DETERMINED BY A STANDARD PROCTOR TEST. UNDER UNPAVED AREAS COMPACT TO 90%.
4. UNSUITABLE TRENCH MATERIAL TO BE REMOVED AND REPLACED WITH 3/4" CRUSHED STONE AS DIRECTED BY ENGINEER.

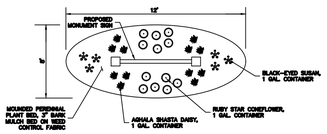
TYPICAL SANITARY SEWER TRENCH SECTION

NOT TO SCALE



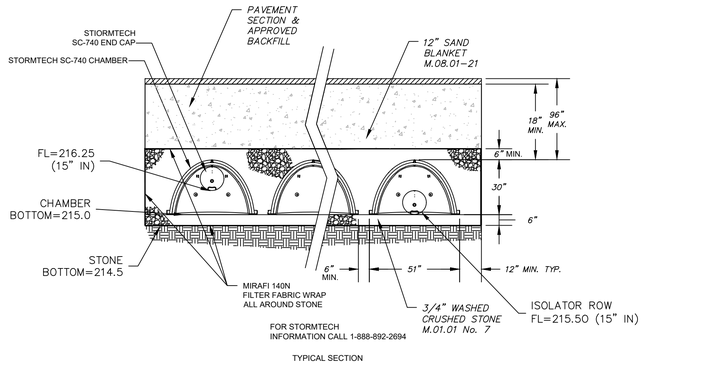
PIPE BOLLARD

NOT TO SCALE

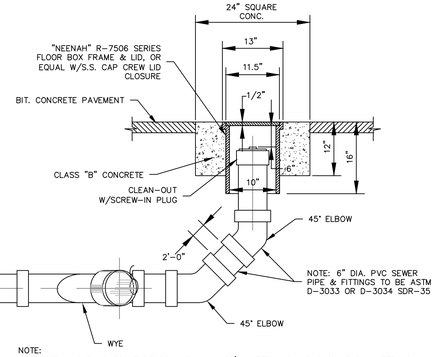


MONUMENT SIGN ISLAND

NOT TO SCALE



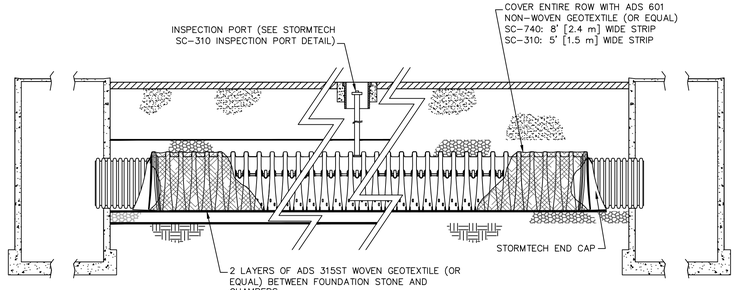
TYPICAL SECTION



NOTE:
1. INSTALL CLEANOUTS AT BENDS AND MAX. 100'± INTERVALS ALONG SANITARY LATERALS.

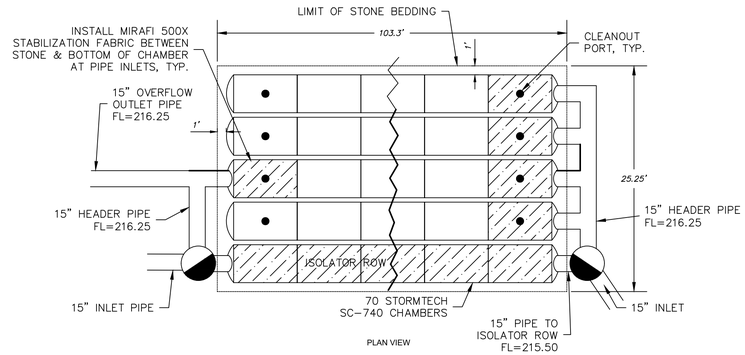
CLEAN-OUT

NOT TO SCALE



STORMTECH ISOLATOR ROW PROFILE

NOT TO SCALE



PLAN VIEW

STORMTECH CHAMBER SUBSURFACE DETENTION SYSTEM

NOT TO SCALE

RUSSO SURVEYORS·ENGINEERS SERVING CT & MA
J.R. Russo & Associates, LLC
13 Graham Rd East Windsor, CT 06088 • 860.623.0969 • MA 413.786.1958
www.jrrusso.com • info@jrrusso.com

Applicant
Vernon Development LLC
56 East Main Street
Avon, Connecticut 06001

REVISIONS

BY:	CHK:
LF/TAC	JEU

2-14-2022	PAGE NUMBERS, ADD OUTLET STRUCTURE
3-17-2022	TALCOTTVILLE ROAD ENTRANCE

The Learning Experience
Property Of
501 Talcottville Road, LLC
501 Talcottville Road
Vernon, Connecticut 06010
Parcel ID: 09-0007-0001D (Zone: C)

Details
(ALT 1)

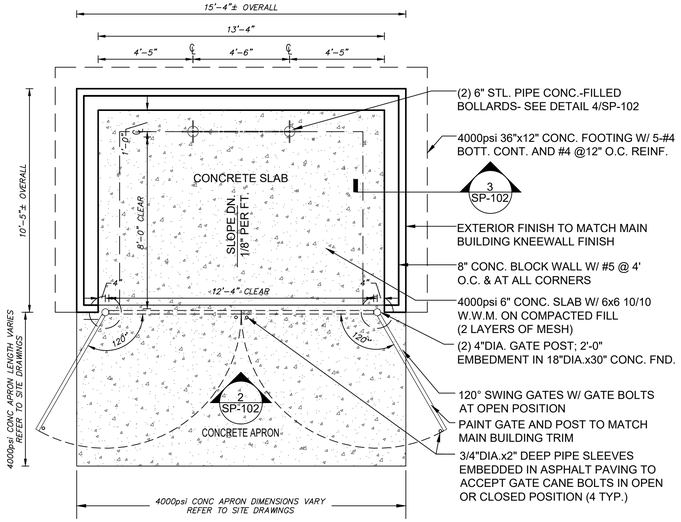
DATE
1-11-22

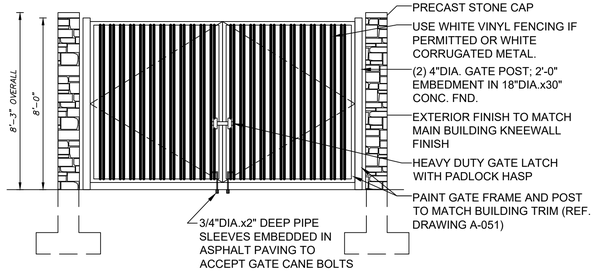
SCALE
1"=20'

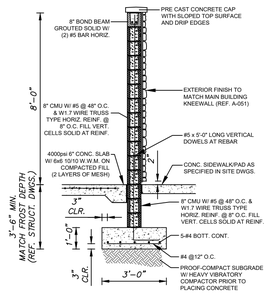
JOB NUMBER
2021-083

SHEET
11 of 12

S:\Acad\2021 Civil 3D\2021-083 Vernon Development - 501 Talcottville Rd\Russo Drawings\2021-083 A.dwg







TABLES OF PLANTING MATERIALS FOR WETLAND CREATION & ENHANCEMENT AREAS
501 TALCOTVILLE ROAD, VERNON, CONNECTICUT

Table 1. Shrubs

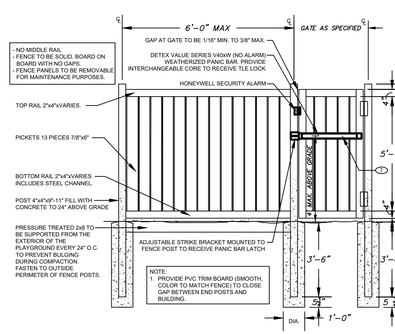
Scientific Name	Zone	Common Name	Size	Shade tolerant?	*Wetland Creation Area*	*Wetland Enhancement Area*	Totals
SHRUBS							
Photinia pyrifolia	C	Chokeberry	3'-4'	N	0	4	4
Clethra alnifolia	B,C	Sweet pepperbush	3'-4'	Y	4	0	4
Ilex verticillata	A,B,C	Winterberry	3'-4'	Y	3	2	5
Sambucus nigra	B	Common elderberry	3'-4'	N	0	2	2
Swida amomum	B,C	Silky dogwood	3'-4'	N	0	3	3
Swida racemosum	B,C	Gray dogwood	3'-4'	Y	5	2	7
Vaccinium corymbosum	B,C	Highbush blueberry	3'-4'	Y	2	0	2
Viburnum cassinoides	B	Wild raisin	3'-4'	Y	2	0	2
Viburnum opulus	B,C	Cranberry viburnum	3'-4'	Y	0	3	3
Totals:					***16***	***16***	32

Table 2. Herbs

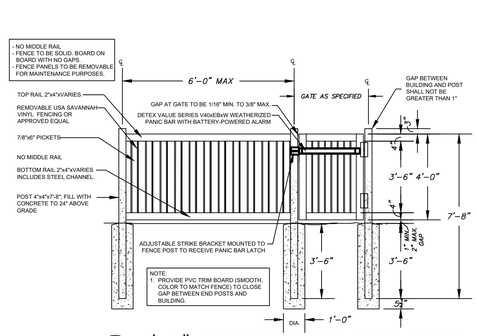
Hydrologic Zones: Zone A: Saturated/Shallow inundation; **Zone B**:temporary saturation/flooding; **Zone C:** moist, poorly to moderately well drained

Scientific Name	Zone	Common Name	Form	NWI*	Spacing	*Wetland Creation Area*	*Wetland Enhancement Area*	*Totals*
Asclepias incarnata	B, C	Swamp milkweed	2"plug	OBL	2'OC	10	40	**50**
Carex crinita	A, B	Fringed sedge	2"plug	OBL	2'OC	25	25	**50**
Osmundastrum cinnamomeum	B, C	Cinnamon fern	#1 pot	FACW	2'OC	5	5	**10**
Eutrochium maculatum	B	Spotted Joe Pye weed	2" plug	FACW	1.5'OC	10	40	**50**
Carex lupulina	A, B	Hop sedge	2" plug	FACW+	2'OC	10	40	**50**
Total:						***60***	***150***	210

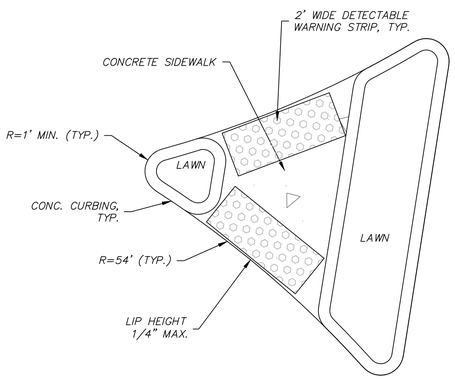
***Seed Mix to be applied at Wetland Creation Area** : New England Wetmix at 1lb/2,500 sq. ft. (Supplier: New England Wetland Plants, Inc.)*



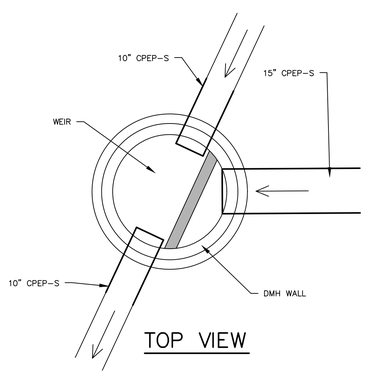
2 TYP. PVC FENCE AND GATE WITH PANIC HARDWARE
SCALE 1/2" = 1'-0"



3 4'-0" PVC FENCE AND GATE DETAIL
SCALE 1/2" = 1'-0"

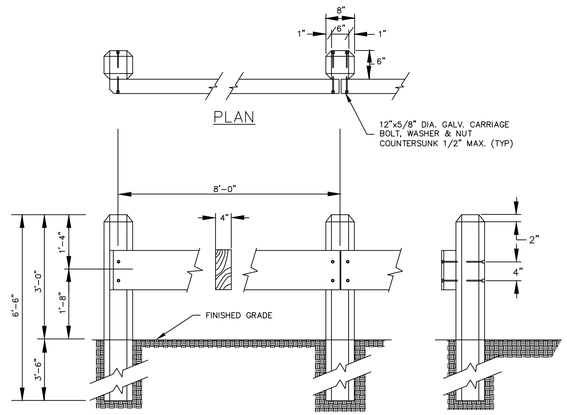


RAISED ISLAND W/ PEDESTRIAN CUT THROUGH
NOT TO SCALE



TOP VIEW

DMH #3 CONNECTION DETAIL
NOT TO SCALE



FRONT ELEVATION SIDE ELEVATION

WOOD GUIDERAIL
N.T.S.

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Applicant
Vernon Development LLC
56 East Main Street
Avon, Connecticut 06001

3-17-2022 TALCOTTVILLE ROAD ENTRANCE

REVISIONS

BY: LF/TAC	CHK: JEU

The Learning Experience
Property Of
501 Talcottville Road, LLC
501 Talcottville Road
Vernon, Connecticut 06010
Parcel ID: 09-0007-0001D (Zone: C)

Details
(ALT 1)

DATE
2-14-22

SCALE
1"=20'

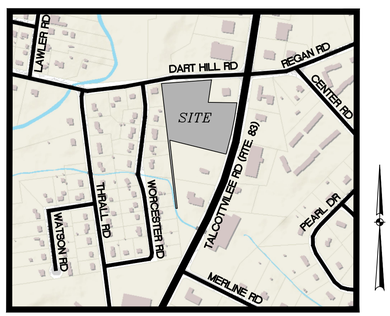
JOB NUMBER
2021-083

SHEET
12 of 12

THE LEARNING EXPERIENCE

ACADEMY OF EARLY EDUCATION

501 Talcottville Road
Vernon, Connecticut



KEY PLAN MAP
1"=500'

Applicant

Vernon Development LLC
56 East Main Street
Avon, CT 06001
(860) 677-5607

Owner

501 Talcottville Road LLC
43 Ridgecrest Lane
Bristol, CT 06010-2910

LADA, P.C.
Land Planners
104 West Street
Simsbury, CT 06070 (860) 651-4971
Brewster, NY 10509 (845) 278-7424
Email: ladapc@snet.net

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ALTERNATE #2

DRAWING INDEX

SHEET TITLE	SHEET NO.	LATEST REVISION
CIVIL		
COVER SHEET	1 of 12	4-06-2022
EXISTING CONDITIONS & DEMOLITION PLAN	2 of 12	3-26-2022
LAYOUT PLAN	3 of 12	3-26-2022
GRADING & EROSION & SEDIMENT CONTROL PLAN	4 of 12	3-26-2022
STORM SEWER PLAN	5 of 12	3-26-2022
UTILITY PLAN	6 of 12	3-28-2022
PLANTING PLAN	7 of 12	4-06-2022
EROSION & SEDIMENT CONTROL NOTES	8 of 12	3-26-2022
DETAILS	9 of 12	3-26-2022
DETAILS	10 of 12	3-26-2022
DETAILS	11 of 12	3-26-2022
DETAILS	12 of 12	3-26-2022

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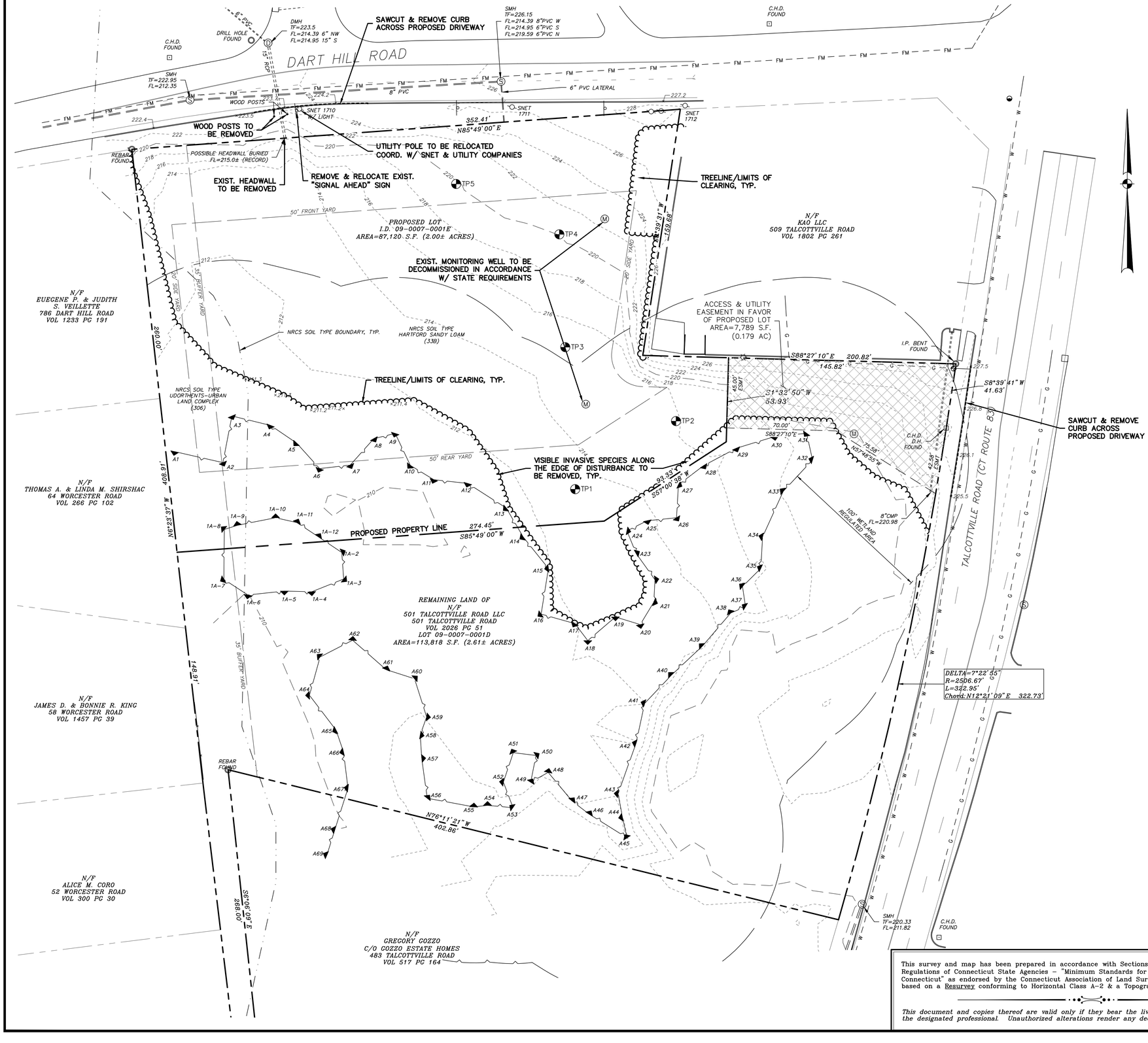

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2. "Topographic Survey Prepared for 501 Talcottville Road LLC, 501 Talcottville Road (CT Route 83) & Dart Hill Road, Vernon, Connecticut" Sheet SV.02Scale: 1"=30' Date: May 2021 by Alfred Benesch & Company.

Notes:

1. Portion of the parcel is located in inland wetlands as delineated by Rema Ecological Services per reference map #2.
2. Proposed lot does not lie within a special flood hazard area per "FEMA flood insurance rate map, town of Vernon, Connecticut community panel number 0901310005C, revised August 9, 1999".
3. Horizontal and vertical datums are based upon map references prepared by Alfred Benesch & Company.
4. All underground utility locations on this plan are approximate and may not be complete. Anyone using this information without verifying the locations does so at their own risk. No construction will be done on this site prior to utility mark out. "Call Before You Dig 1-800-922-4455".
5. Boundary and existing conditions shown hereon are based on map references prepared by Alfred Benesch & Company.
6. Line striping in Talcottville Road (Rte. 83) approximated based on aerial photography.

LEGEND

	EXISTING UTILITY POLE
UG	PROPOSED UNDERGROUND ELECTRIC
G	EXISTING GAS LINE
G	PROPOSED GAS LINE
W	EXISTING WATER LINE
W	PROPOSED WATER LINE
FP	PROPOSED FIRE PROTECTION LINE
	EXISTING CATCH BASIN
	PROPOSED CATCH BASIN
	EXISTING DRAINAGE MANHOLE
	PROPOSED DRAINAGE MANHOLE
	EXISTING STORM SEWER
	PROPOSED STORM SEWER
RL	PROPOSED ROOF LEADER
S	EXISTING SANITARY MANHOLE
S	EXISTING SANITARY SEWER
FM	EXISTING SANITARY FORCE MAIN
S	PROPOSED SANITARY SEWER
	EXISTING SIGN
	PROPOSED SIGN
	EXISTING IRON PIN (FOUND)
	PROPOSED IRON PIN (TO BE SET)
1.35x5	EXISTING MONUMENT (FOUND)
135.5	PROPOSED SPOT GRADE
136	EXISTING CONTOUR
136	PROPOSED CONTOUR
	LIMIT OF WETLANDS
	PROPERTY LINE
	EASEMENT LINE
	BUILDING LINE
	STAKED HAYBALES OR SILT FENCE

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

This survey and map has been prepared in accordance with Sections 20-300b-1 thru 20-300b-20 of the Regulations of Connecticut State Agencies - "Minimum Standards for Surveys and Maps in the State of Connecticut" as endorsed by the Connecticut Association of Land Surveyors, Inc. It is a Property Survey based on a Resurvey conforming to Horizontal Class A-2 & a Topographic Survey conforming to Class T-2.

This document and copies thereof are valid only if they bear the live signature and embossed seal of the designated professional. Unauthorized alterations render any declaration hereon null and void.

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

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Applicant
Vernon Development LLC
56 East Main Street
Avon, Connecticut 06001

REVISIONS		
BY: LF/TAC	CHK: JEU	
3-28-2022	TALCOTTVILLE RD ENTRANCE, APPLY VARIANCES	
2-14-2022	PAGE NUMBERS	

The Learning Experience
Property Of
501 Talcottville Road, LLC
501 Talcottville Road
Vernon, Connecticut 06010
Parcel ID: 09-0007-0001D (Zone: C)

Existing Conditions & Demolition Plan
(ALT 2)

DATE: 1-11-22
SCALE: 1"=30'
JOB NUMBER: 2021-083
SHEET: 2 of 12

S:\Acad\2021 Civil 3D\2021-083 Vernon Development - 501 Talcottville Rd\Russo Drawings\2021-083 B - Pushed forward.dwg

RELOCATE UTILITY POLE COORD. W/ SNET & UTILITY COMPANIES

RELOCATE UTILITY POLE COORD. W/ SNET & UTILITY COMPANIES

C.H.D. FOUND

RELOCATED "SIGNAL AHEAD" SIGN

"DO NOT BLOCK ENTRANCE" SIGN

SMH TF=222.95 FL=212.35

DRILL HOLE FOUND

6" PVC

DMH TF=223.5 FL=214.39 6" NW FL=214.95 15" S

15" RCP

DART HILL ROAD

PROVIDE CLEAN SAWCUT & TACK COAT EDGES PRIOR TO INSTALLMENT OF NEW PAVEMENT

SIDEWALK RAMP (TYPE 16)

SMH TF=226.15 FL=214.39 8"PVC W FL=214.95 6"PVC S FL=219.59 6"PVC N

C.H.D. FOUND

PROP. MAILBOX FINAL LOCATION TO BE DETERMINED W/ USPS

8" PVC

TEMPORARY CONSTRUCTION SIGN, MAX. AREA=32 SF

6" PVC LATERAL

SNET 1711

SNET 1712

PROP. 5' CONC. SIDEWALK

352.41' N85°49'00"E

6" BIT. CONC. LIP CURB, TYP.

PROVIDE CLEAN SAWCUT & CONNECT TO EXIST. SIDEWALK AT PROPERTY LINE

PERMANENT MONUMENT SIGN MAX. AREA=80 SF

TERMINATE SIDEWALK AT PROPERTY LINE

REBAR FOUND

12" WIDE STOP BAR, 4" DOUBLE YELLOW CENTERLINE & STOP SIGN (31-0552)

PRE-CAST CONC. CURB ADJACENT TO SIDEWALK, TYP.

CANOPY AT ENTRANCE

SIDEWALK RAMP (TYPE B)

50' FRONT YARD

LOADING SPACE

GATE

SIDEWALK RAMP (TYPE A)

BOLLARD MOUNTED VAN ACCESSIBLE PARKING SIGNS

BOLLARD MOUNTED STANDARD ADA PARKING SIGN

BUILDING MOUNTED SIGNAGE (SEE ARCH DWGS)

PROP. 1-STORY BUILDING (10,000 S.F.) FIN.FL.=222.9

PROPOSED LOT I.D. 09-0007-0001E AREA=87,120 S.F. (2.00± ACRES)

N/F KAO LLC 509 TALCOTTVILLE ROAD VOL 1802 PC 261

S8°39'41"W 159.68'

SIDEWALK LANDING

SIDEWALK RAMP (TYPE 16)

TRANSFORMER

4' HIGH SOLID WHITE PVC FENCE

10'X20' DUMPSTER ENCLOSURE

4' HIGH SOLID WHITE PVC FENCE

N/F EUGENE P. & JUDITH S. VEILLETTE 786 DART HILL ROAD VOL 1233 PC 191

260.00'

74.6'±

GATE

PLAYGROUND 4,500 S.F.

GATE

81LF RETAINING WALL

PROVIDE CLEAN SAWCUT & CONNECT TO EXIST. SIDEWALK

RAISED ISLAND W/ PEDESTRIAN CUT-THROUGH (SEE DETAIL)

ACCESS & UTILITY EASEMENT IN FAVOR OF PROPOSED LOT AREA=7,789 S.F. (0.179 AC)

S88°27'10"E 200.82' 145.82'

I.P. BENT FOUND

5' WIDE CONC. SIDEWALK

SIDEWALK RAMP (TYPE 16)

S8°39'41"W 41.63'

PROVIDE CLEAN SAWCUT & TACK COAT EDGES PRIOR TO INSTALLMENT OF NEW PAVEMENT

C.H.D. D.H. FOUND

"NO LEFT TURN" SIGN (31-1603)

"DO NOT ENTER" SIGNS (31-1119)

SIDEWALK RAMP (TYPE 16)

TERMINATE SIDEWALK

TALCOTTVILLE ROAD (CT ROUTE 83)

220LF RETAINING WALL

6' HIGH SOLID WHITE PVC FENCE SURROUNDING PLAYGROUND

PROP. WOOD GUIDE RAIL

S1°32'50"W 53.93'

129LF RETAINING WALL

70.00' S88°27'10"E

N/F THOMAS A. & LINDA M. SHIRSHAC 64 WORCESTER ROAD VOL 266 PC 102

130.1'±

409.9'

N52°23'37"W

50' REAR YARD

STORMWATER MANAGEMENT BASIN

CLEARING LIMIT, TYP.

S37°00'38"W 93.93'

12" WIDE STOP BAR, 4" DOUBLE YELLOW CENTERLINE & STOP SIGN (31-0552)

"NO LEFT TURN" SIGN (31-1603) MOUNTED ON STOP SIGN POST

8"CMP FL=220.98

100' WETLAND REGULATED AREA

PROPOSED PROPERTY LINE 274.45' S85°49'00"W

WETLAND CREATION AREA (2,100±) SEED W/ NEW ENGLAND WETMIX BY NEW ENGLAND WETLAND PLANTS, INC OR APPROVED EQUAL BOT. ELEV. =210.5

WETLAND ENHANCEMENT PLANTINGS (2,500±) SEE PLANTING LIST THIS SHEET

REMAINING LAND OF N/F 501 TALCOTTVILLE ROAD LLC 501 TALCOTTVILLE ROAD VOL 2026 PC 51 LOT 09-0007-0001D AREA=113,818 S.F. (2.61± ACRES)

A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12 A13 A14 A15 A16 A17 A18 A19 A20 A21 A22 A23 A24 A25 A26 A27 A28 A29 A30 A31 A32 A33 A34 A35 A36 A37 A38 1A-1 1A-2 1A-3 1A-4 1A-5 1A-8 1A-9 1A-10 1A-11 1A-12 A62

ZONING INFORMATION (ZONE C)		
ZONING	REQUIRED	PROPOSED
USE	DAY CARE CENTER	DAY CARE CENTER
BUILDING AREA	1,000 S.F.	10,000 S.F.
LOT AREA	22,000 S.F.	87,120 S.F.
LOT WIDTH	100'	352.41'
FRONT YARD	50'	63'
REAR YARD	50'	130.1'±
SIDE YARD	20'	74.6'±
HEIGHT	N/A	26'
PARKING SPACES	57 SPACES	40 SPACES*
*VARIANCE REQUIRED		

PROP. BUILDING COVERAGE: 11.5% (10,000 S.F.)
PROP. LOT COVERAGE: 43.9% (38,211 S.F.)

PARKING REQUIREMENTS
DAYCARE: 1 SPACE/1 EMPLOYEE * 26 EMPLOYEES = 26 SPACES
1 SPACE/5 STUDENTS * 153 STUDENTS = 30.6 SPACES

TOTAL SPACES REQUIRED: 57 SPACES
TOTAL SPACES PROVIDED: 40 SPACES (3 HANDICAP ACCESSIBLE)

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

LEGEND

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G	EXISTING GAS LINE
G	PROPOSED GAS LINE
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	PROPOSED DRAINAGE MANHOLE
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	PROPOSED STORM SEWER
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Applicant
Vernon Development LLC
56 East Main Street
Avon, Connecticut 06001

REVISIONS	
BY: LF/TAC	CHK: JEU
3-26-2022	TALCOTTVILLE RD ENTRANCE, APPLY VARIANCES
2-14-2022	WETLAND MITIGATION, LEAK-OFF, BASIN OUTLET

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501 Talcottville Road
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Parcel ID: 09-0007-0001D (Zone: C)

Layout Plan
(ALT 2)

DATE 1-11-22
SCALE 1"=20'
JOB NUMBER 2021-083
SHEET 3 of 12

S:\Acad\2021 Civil 3D\2021-083 Vernon Development - 501 Talcottville Rd\Russo Drawings\2021-083 B - Pushed forward.dwg

DART HILL ROAD

DMH TF=223.5 FL=214.39 6" NW FL=214.95 15" S

SMH TF=226.15 FL=214.39 8"PVC W FL=214.95 6"PVC S FL=219.59 6"PVC N

SMH TF=222.95 FL=212.35

8" PVC

6" PVC LATERAL

DRILL HOLE FOUND

C.H.D. FOUND

REBAR FOUND

SNET 1711

SNET 1712

DMH4 TF=224.20

DMH3 TF=221.90

DMH1 TF=222.10

CB2 TF=221.40

DMH2 TF=223.20

CB1 TF=221.00

CB3 TF=221.40

CB4 TF=220.00

AD1 TF=222.20

TRANSFORMER PAD

TEMPORARY TOPSOIL STOCKPILE

DUMPSTER PAD

PROP. 1-STORY BUILDING (10,000 S.F.) FIN.FL.=222.9

PROPOSED LOT I.D. 09-0007-0001E AREA=87,120 S.F. (2.00± ACRES)

PLAYGROUND 4,500 S.F.

50' FRONT YARD

50' REAR YARD

N/F KAO LLC 509 TALCOTTVILLE ROAD VOL 1802 PG 261

N/F EUGENE P. & JUDITH S. VEILLETTE 786 DART HILL ROAD VOL 1233 PG 191

N/F THOMAS J. & LINDA M. SHIRSHAC 64 WORCESTER ROAD VOL 266 PG 102

REMAINING LAND OF N/F 501 TALCOTTVILLE ROAD LLC 501 TALCOTTVILLE ROAD VOL 2026 PG 51 LOT 09-0007-0001D AREA=113,818 S.F. (2.61± ACRES)

81 LF RETAINING WALL

94 LF RETAINING WALL

220 LF RETAINING WALL

PROTECT EXIST. GAS SERVICE

I.P. BENT FOUND

C.H.D. D.H. FOUND

PROP. WOOD GUIDE RAIL

STORMWATER MANAGEMENT BASIN BOT. ELEV. =214.0

WETLAND CREATION AREA (2,100±) SEED W/ NEW ENGLAND WETMIX BY NEW ENGLAND WETLAND PLANTS, INC OR APPROVED EQUAL BOT. ELEV. =210.5

WETLAND ENHANCEMENT PLANTINGS (2,500±) SEE PLANTING LIST SHEET 13

INSTALL JUTE NETTING OR TEMPORARY EROSION CONTROL BLANKET ON SLOPES 3:1 OR STEEPER, TYP.

BACK SILT FENCE W/ 1' HIGH WOOD CHIP MOUND, TYP.

8"CMP FL=220.98

100' WETLAND REGULATED AREA

TALCOTTVILLE ROAD (CT ROUTE 83)

TP1 TP2 TP3 TP4 TP5

Test Pit Data:
Observed by J.R. Russo & Associates on 12-17-2021

TP 1
0"-12" Topsoil/Organics
12"-20" Brown Fine Sandy Loam
20"-68" Red-Brown, Firm Loamy Sand & Gravel
Water @ 66"
Mottles @ 21"
No Ledge

TP 2
0"-12" Topsoil/Organics
12"-24" Brown Fine Sandy Loam
24"-62" Red-Brown, Firm Loamy Sandy & Gravel
Water @ 60"
Mottles @ 48"
No Ledge

TP 3
0"-12" Topsoil/Organics
12"-30" Brown Fine Sandy Loam
30"-64" Red-Brown, Firm Sand & Gravel
Water @ 60"
Mottles @ 40"
No Ledge

TP 4
0"-8" Topsoil/Organics
8"-24" Brown Fine Sandy Loam
24"-90" Red-Brown Loose Sand & Gravel
No Water
No Mottles
No Ledge

TP 5
0"-6" Topsoil/Organics
6"-18" Brown Fine Sandy Loam
24"-64" Red-Brown Loose Sand & Gravel
No Water
No Mottles
No Ledge

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

EROSION & SEDIMENT CONTROL PLAN KEY

PS	PERMANENT SEEDING
TS	TEMPORARY SEEDING
CE	CONSTRUCTION ENTRANCE
GSF	GEOTEXTILE SILT FENCE
RR	RIPRAP
OP	OUTLET PROTECTION
IP	INLET PROTECTION

LEGEND

- EXISTING UTILITY POLE
- UG — PROPOSED UNDERGROUND ELECTRIC
- EXISTING GAS LINE
- G — PROPOSED GAS LINE
- EXISTING WATER LINE
- W — PROPOSED WATER LINE
- FP — PROPOSED FIRE PROTECTION LINE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING DRAINAGE MANHOLE
- PROPOSED DRAINAGE MANHOLE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- RL — PROPOSED ROOF LEADER
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY SEWER
- FM — EXISTING SANITARY FORCE MAIN
- S — PROPOSED SANITARY SEWER
- EXISTING SIGN
- PROPOSED SIGN
- EXISTING IRON PIN (FOUND)
- PROPOSED IRON PIN (TO BE SET)
- EXISTING MONUMENT (FOUND)
- 1.35x5 EXISTING SPOT GRADE
- 135.5 PROPOSED SPOT GRADE
- 1.36 EXISTING CONTOUR
- 1.36 PROPOSED CONTOUR
- LIMIT OF WETLANDS
- PROPERTY LINE
- EASEMENT LINE
- BUILDING LINE
- STAKED HAYBALES OR SILT FENCE

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TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

RUSSO SURVEYORS·ENGINEERS SERVING CT & MA
J.R. Russo & Associates, LLC
1 Shoham Rd East Windsor, CT 06088 · CT 860.633.0569 · MA 413.785.1158
www.jrrusso.com · info@jrrusso.com

Applicant
Vernon Development LLC
56 East Main Street
Avon, Connecticut 06001

REVISIONS		
3-26-2022	TALCOTTVILLE RD ENTRANCE, APPLY VARIANCES	
3-01-2022	SHIFT CONSTRUCTION ENTRANCE EAST	
2-14-2022	WETLAND MITIGATION, LEAK-OFF, BASIN OUTLET	
BY: LF/TAC	CHK: JEU	

The Learning Experience
Property Of
501 Talcottville Road, LLC
501 Talcottville Road
Vernon, Connecticut 06010
Parcel ID: 09-0007-0001D (Zone: C)

Grading & Erosion & Sediment Control Plan
(ALT 2)

DATE 1-11-22
SCALE 1"=20'
JOB NUMBER 2021-083
SHEET 4 of 12

S:\Acad\2021 Civil 3D\2021-083 Vernon Development - 501 Talcottville Rd\Russo Drawings\2021-083 B - Pushed forward.dwg

CONTRACTOR TO PERFORM TEST PIT TO VERIFY LOCATION & ELEVATION OF END OF PIPE, REMOVE HEADWALL & EXTEND PIPE AS NECESSARY TO CONNECT TO DMH

PROP. SUBSURFACE INFILTRATION SYSTEM
4 ROWS X 15 ADS SC740 CHAMBERS
FL=216.25
FL=215.00 (ISOLATOR ROW)
BOT. ELEV.=215.00
BOT. STONE=214.50

DART HILL ROAD

PROP. DMH4
TF=224.30
FL=215.0± (EXIST.)

8'-15" CPEP-S
HEADER PIPE
S=0.00%
FL=216.25

6" PVC LATERAL

13'-10" CPEP-S
S=3.08%

60'-15" CPEP-S
S=0.00%
FL=216.25

PROP. DMH3
TF=221.90
FL=217.60 (WEIR)
FL=215.25 (15" E)
FL=213.20 (N,S)

ISOLATOR ROW

PROP. DMH1
TF=222.10
FL=216.43 (W)
FL=215.75 (N)
FL=215.00 (E)

3'-15" CPEP-S
S=0.00%
FL=215.00

12'-15" CPEP-S
HEADER PIPE
S=0.00%
FL=216.25

PROP. DMH2
TF=223.20
FL=218.28 (SE)
FL=216.25 (N)
FL=215.00 (W)

62'-15" CPEP-S
S=1.00%

PROP. CB1 W/
TRAP HOOD
TF=221.00
FL=217.50

107'-15" CPEP-S
S=1.03%

N/F
KAO LLC
509 TALCOTTVILLE ROAD
VOL 1802 PG 261

PROP. AD
TF=221.90
FL=218.90

RIPRAP CHANNEL FROM EXIST. LEAK-OFF TO AREA DRAIN

PROP. CB2 W/
TRAP HOOD
TF=221.40
FL=215.00

FL=219.65

FL=220.40

61'-6" PVC SDR-35
ROOF LEADER DISCHARGE
S=1.07%

151'-6" PVC SDR-35
ROOF LEADER DISCHARGE
S=0.5%

PROP. 1-STORY
BUILDING
(10,000 S.F.)
FIN.FL.=222.9

PROPOSED LOT
I.D. 09-0007-0001E
AREA=87,120 S.F. (2.00± ACRES)

6"X8" PVC TEE
FL=219.00

PROP. CB3
TF=221.40
FL=218.48
FL=217.90

60'-15" CPEPS-S
S=2.33%

PROP. CB4
TF=220.00
FL=216.50

8'-6" PVC SDR-35
ROOF LEADER DISCHARGE
S=8.13%

151'-8" PVC SDR-35
ROOF LEADER DISCHARGE
S=0.5%

FL=219.65

120'-15" CPEP-S
S=1.00%

FL=220.40

INSTALL ELIMINATOR TRAP HOOD ON OUTLET PIPE

20'-15" CPEPS-S
S=2.50%

20'-8" PVC SDR-35
ROOF LEADER DISCHARGE
S=2.60%

PLAYGROUND
4,500 S.F.

BOTTOM OUTLET TO ELBOW; FL=218.9

15'-6" PVC SDR-35
S=6.00%

120LF 6"-WIDE TRENCH DRAIN
TF=222.35

FL=218.0

FLARED END
FL=216.00

RIPRAP CHANNEL TO BASIN BOTTOM

SEDIMENTARY FOREBAY
BOT. ELEV.=214.0

STORMWATER MANAGEMENT BASIN
BOT. ELEV=214.0

10' WIDE EMERGENCY SPILLWAY
ELEV.=218.5

STONE FILTER BERM
TOP ELEV.= 217.0

12" THICK MODIFIED RIPRAP SLOPE PROTECTION AT SPILLWAY EXTENDED 5' BEYOND TOE OF SLOPE

28'-10" CPEP-S
S=1.07%

4' WIDE BERM
TOP ELEV.=219.0

TYPE A RIPRAP APRON
FL=212.0

OUTLET STRUCTURE
TF=218.40
FL=216.60 (8" ORIFICE)
FL=212.30 (10" OUT)

TYPE A RIPRAP APRON
FL=212.0

8" ELBOW

EXTEND PIPE TO DAYLIGHT W/ 8" PVC

8"CMP
FL=220.98

FL=220.7±

150' WETLAND REGULATED AREA

TALCOTTVILLE ROAD
(CT ROUTE 83)

I.P. BENT FOUND

C.H.D. D.H. FOUND

C.H.D. FOUND

DRILL HOLE FOUND

DMH
TF=223.5
FL=214.39 6" NW
FL=214.95 15" S

SMH
TF=226.15
FL=214.39 8"PVC W
FL=214.95 6"PVC S
FL=219.59 6"PVC N

SMH
TF=222.95
FL=212.35

SNET 1711

SNET 1712

N/F
EUGENE P. & JUDITH S. VEILLETTE
786 DART HILL ROAD
VOL 1233 PG 191

N/F
THOMAS A. & LINDA M. SHIRSHAC
64 WORCESTER ROAD
VOL 266 PG 102

REMAINING LAND OF
N/F
501 TALCOTTVILLE ROAD LLC
501 TALCOTTVILLE ROAD
VOL 2026 PG 51
LOT 09-0007-0001D
AREA=113,818 S.F. (2.61± ACRES)

TP1
TP2
TP3
TP4
TP5

Test Pit Data:
Observed by J.R. Russo & Associates on 12-17-2021

TP 1
0"–12" Topsoil/Organics
12"–20" Brown Fine Sandy Loam
20"–68" Red–Brown, Firm Loamy Sand & Gravel
Water @ 66"
Mottles @ 21"
No Ledge

TP 2
0"–12" Topsoil/Organics
12"–24" Brown Fine Sandy Loam
24"–62" Red–Brown, Firm Loamy Sandy & Gravel
Water @ 60"
Mottles @ 48"
No Ledge

TP 3
0"–12" Topsoil/Organics
12"–30" Brown Fine Sandy Loam
30"–64" Red–Brown, Firm Sand & Gravel
Water @ 60"
Mottles @ 40"
No Ledge

TP 4
0"–8" Topsoil/Organics
8"–24" Brown Fine Sandy Loam
24"–90" Red–Brown Loose Sand & Gravel
No Water
No Mottles
No Ledge

TP 5
0"–6" Topsoil/Organics
6"–18" Brown Fine Sandy Loam
24"–64" Red–Brown Loose Sand & Gravel
No Water
No Mottles
No Ledge

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

LEGEND

- EXISTING UTILITY POLE
- UG — PROPOSED UNDERGROUND ELECTRIC
- G — EXISTING GAS LINE
- G — PROPOSED GAS LINE
- W — EXISTING WATER LINE
- W — PROPOSED WATER LINE
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- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
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- PROPOSED DRAINAGE MANHOLE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- RL — PROPOSED ROOF LEADER
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY SEWER
- FM — EXISTING SANITARY FORCE MAIN
- S — PROPOSED SANITARY SEWER
- EXISTING SIGN
- PROPOSED SIGN
- EXISTING IRON PIN (FOUND)
- PROPOSED IRON PIN (TO BE SET)
- EXISTING MONUMENT (FOUND)
- 1.35x5 EXISTING SPOT GRADE
- 135.5 PROPOSED SPOT GRADE
- 1.36 EXISTING CONTOUR
- 136 PROPOSED CONTOUR
- LIMIT OF WETLANDS
- PROPERTY LINE
- EASEMENT LINE
- BUILDING LINE
- STAKED HAYBALES OR SILT FENCE

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Applicant
Vernon Development LLC
56 East Main Street
Avon, Connecticut 06001

REVISIONS		
BY: LF/TAC	CHK: JEU	
3-26-2022	TALCOTTVILLE RD ENTRANCE, APPLY VARIANCES	
2-14-2022	WETLAND MITIGATION, LEAK-OFF, BASIN OUTLET	

The Learning Experience
Property Of
501 Talcottville Road, LLC
501 Talcottville Road
Vernon, Connecticut 06010
Parcel ID: 09-0007-0001D (Zone: C)

Storm Sewer Plan
(ALT 2)

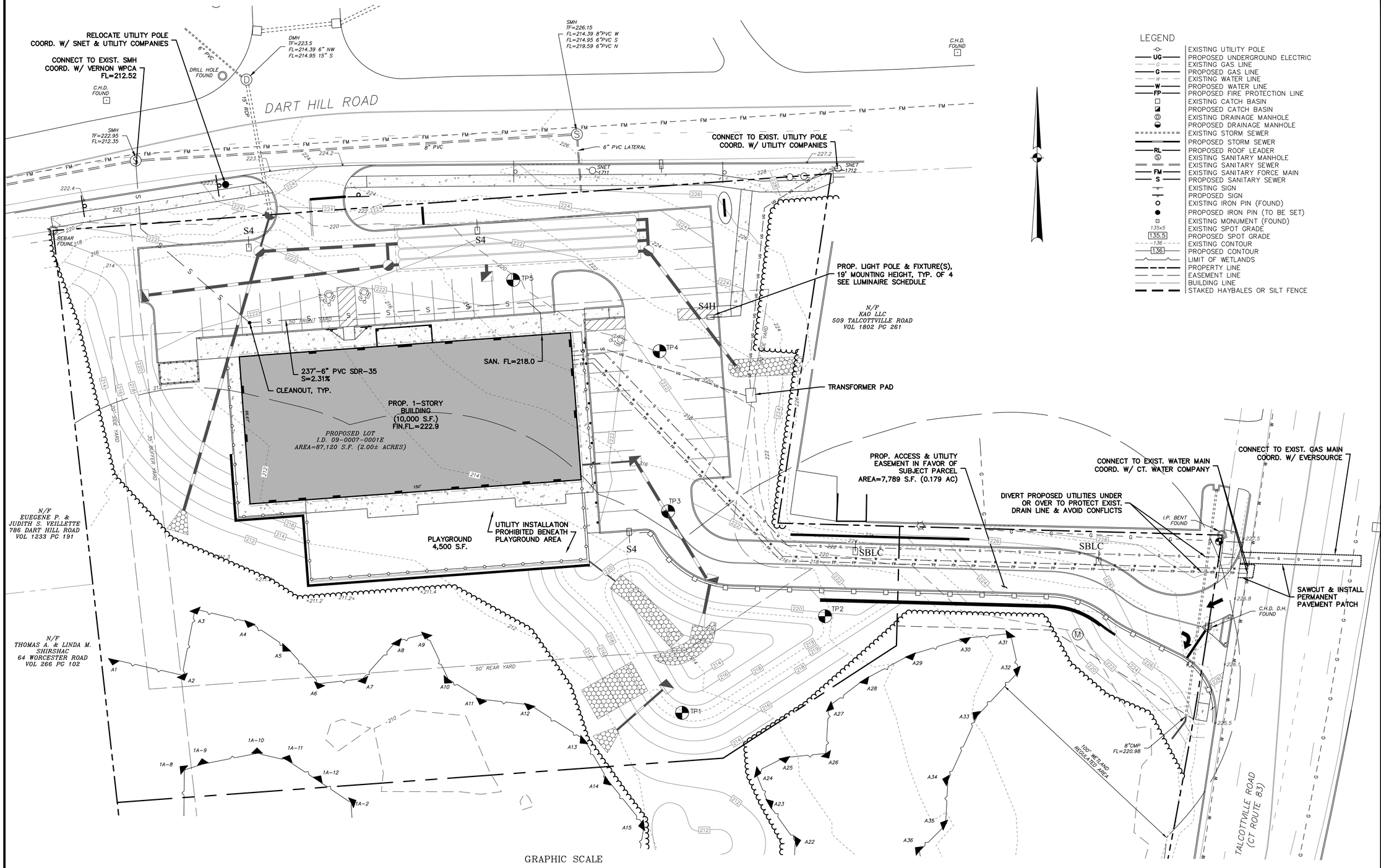
DATE
1-11-22

SCALE
1"=20'

JOB NUMBER
2021-083

SHEET
5 of 12

S:\Acad\2021 Civil 3D\2021-083 Vernon Development - 501 Talcottville Rd\Russo Drawings\2021-083 B - Pushed forward.dwg



LEGEND

- EXISTING UTILITY POLE
- UG — PROPOSED UNDERGROUND ELECTRIC
- G — EXISTING GAS LINE
- G — PROPOSED GAS LINE
- W — EXISTING WATER LINE
- W — PROPOSED WATER LINE
- FP — PROPOSED FIRE PROTECTION LINE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING DRAINAGE MANHOLE
- PROPOSED DRAINAGE MANHOLE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- RL — PROPOSED ROOF LEADER
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY SEWER
- FM — EXISTING SANITARY FORCE MAIN
- S — PROPOSED SANITARY SEWER
- EXISTING SIGN
- PROPOSED SIGN
- EXISTING IRON PIN (FOUND)
- PROPOSED IRON PIN (TO BE SET)
- EXISTING MONUMENT (FOUND)
- 1.35x5 — EXISTING SPOT GRADE
- 135.5 — PROPOSED SPOT GRADE
- 136 — EXISTING CONTOUR
- 136 — PROPOSED CONTOUR
- LIMIT OF WETLANDS
- PROPERTY LINE
- EASEMENT LINE
- BUILDING LINE
- STAKED HAYBALES OR SILT FENCE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

Luminaire Schedule									
Symbol	Qty	Label	Arrangement	Luminaire Lumens	Luminaire Watts	LLF	BUG Rating	Mounting Height	Description
	3	S4	Single	12574	102	0.900	B2-U0-G3	19	Lithonia DSX1 LED P3 40K TFTM MVOLT SPA DBLXD - SSS 18 4C DM19A DBLXD 18FT POLE on 1FT BASE
	1	S4H	Single	11312	125	0.900	B2-U0-G2	19	Lithonia DSX1 LED P4 40K TFTM MVOLT SPA HS DBLXD - SSS 18 4C DM19AS DBLXD 18FT POLE on 1FT BASE
	2	SBLC	Single	7293	70	0.900	B1-U0-G2	19	Lithonia DSX1 LED P2 40K BLC MVOLT SPA DBLXD - SSS 18 4C DM19A DBLXD 18FT POLE on 1FT BASE

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Applicant
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56 East Main Street
Avon, Connecticut 06001

REVISIONS		
3-28-2022	SITE LIGHTING	
3-26-2022	TALCOTTVILLE RD ENTRANCE, APPLY VARIANCES	
2-14-2022	WETLAND MITIGATION, LEAK-OFF, BASIN OUTLET	

BY: LF/TAC | CHK: JEU

The Learning Experience
Property Of
501 Talcottville Road, LLC
501 Talcottville Road
Vernon, Connecticut 06010
Parcel ID: 09-0007-0001D (Zone: C)

Utility Plan
(ALT 2)

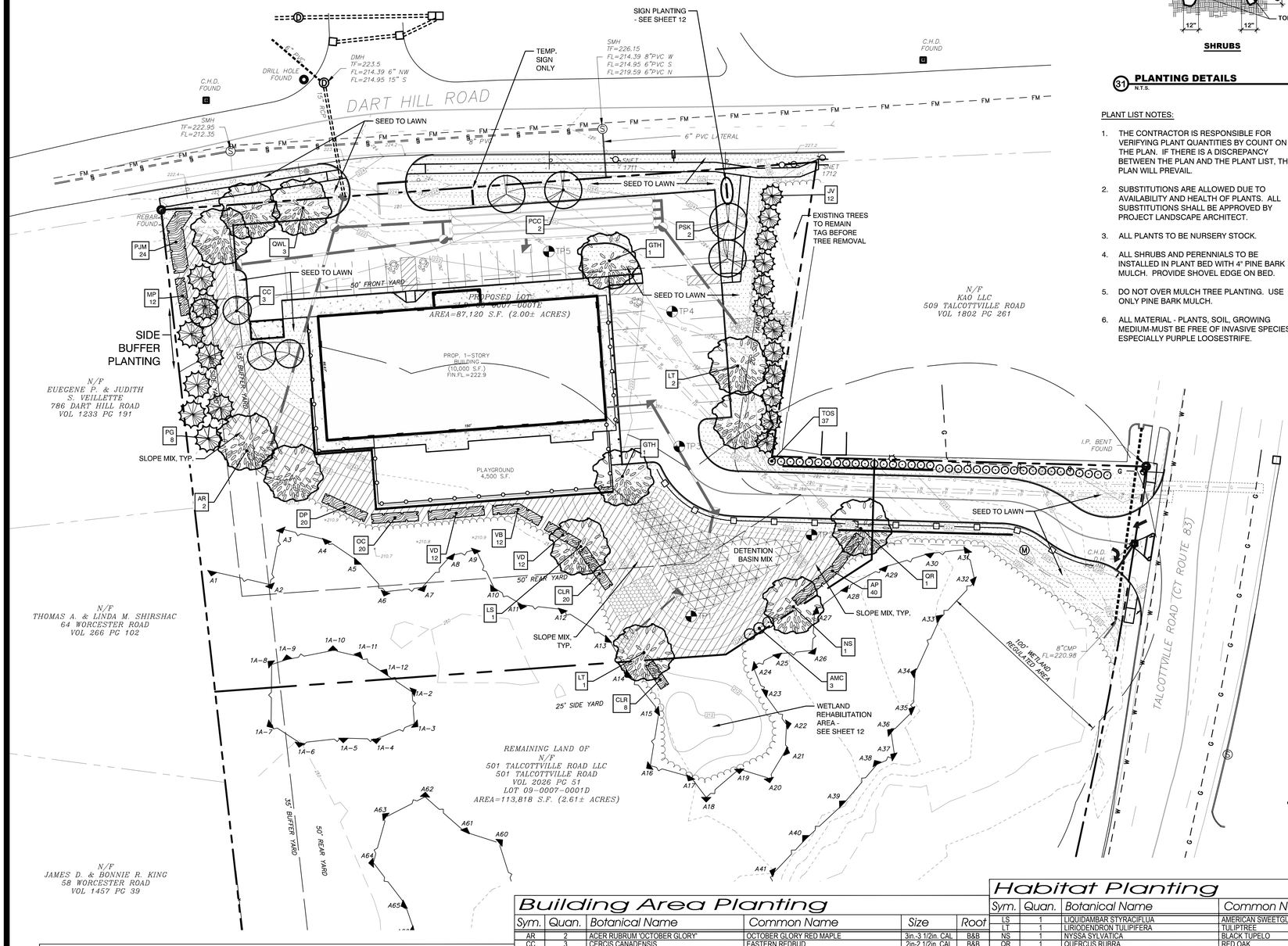
DATE
1-11-22

SCALE
1"=20'

JOB NUMBER
2021-083

SHEET
6 of 12

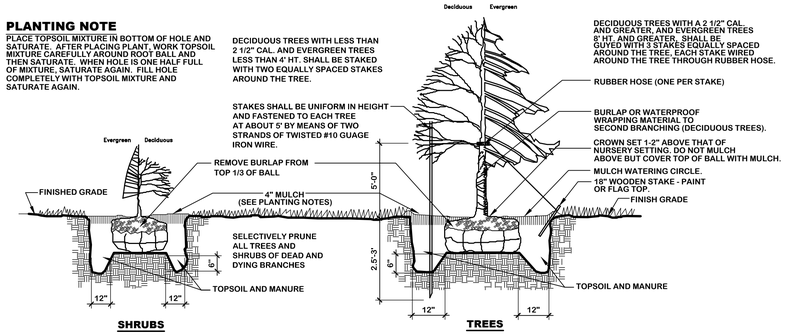
S:\Acad\2021 Civil 3D\2021-083 Vernon Development - 501 Talcottville Rd\Russo Drawings\2021-083 B - Pushed forward.dwg



PLANTING NOTE

PLACE TOPSOIL MIXTURE IN BOTTOM OF HOLE AND SATURATE. AFTER PLACING PLANT, WORK TOPSOIL MIXTURE CAREFULLY AROUND ROOT BALL AND THEN SATURATE. WHEN HOLE IS ONE HALF FULL OF MIXTURE, SATURATE AGAIN. FILL HOLE COMPLETELY WITH TOPSOIL MIXTURE AND SATURATE AGAIN.

DECIDUOUS TREES WITH LESS THAN 2 1/2" CAL. AND EVERGREEN TREES LESS THAN 4' HT. SHALL BE STAKED WITH TWO EQUALLY SPACED STAKES AROUND THE TREE.



31 PLANTING DETAILS
N.T.S.

PLANT LIST NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING PLANT QUANTITIES BY COUNT ON THE PLAN. IF THERE IS A DISCREPANCY BETWEEN THE PLAN AND THE PLANT LIST, THE PLAN WILL PREVAIL.
2. SUBSTITUTIONS ARE ALLOWED DUE TO AVAILABILITY AND HEALTH OF PLANTS. ALL SUBSTITUTIONS SHALL BE APPROVED BY PROJECT LANDSCAPE ARCHITECT.
3. ALL PLANTS TO BE NURSERY STOCK.
4. ALL SHRUBS AND PERENNIALS TO BE INSTALLED IN PLANT BED WITH 4" PINE BARK MULCH. PROVIDE SHOVEL EDGE ON BED.
5. DO NOT OVER MULCH TREE PLANTING. USE ONLY PINE BARK MULCH.
6. ALL MATERIAL - PLANTS, SOIL, GROWING MEDIUM-MUST BE FREE OF INVASIVE SPECIES - ESPECIALLY PURPLE LOOSESTRIFE.

SEEDING OPERATIONS

A. FERTILIZER AND LIMESTONE

CONTRACTOR SHALL CONDUCT APPROPRIATE SOIL TESTS TO DETERMINE AMOUNT OF FERTILIZER AND LIMESTONE REQUIRED TO ENSURE AN ACCEPTABLE LAWN.
GROUND LIMESTONE: 100LBS/1000S.F.
COMMERCIAL FERTILIZER: * 20LBS/1000S.F.

*PERCENTAGES OF NITROGEN, PHOSPHORIC ACID AND POTASH TO BE DETERMINED BY SOIL TESTS.

B. LAWN SEED

SEED MIXTURE FOR: LATE SUMMER / EARLY FALL / EARLY SPRING PLANTING. SOW AT RATE OF 4 LBS/1000 S.F.

CREEPING RED FESCUE	35 PARTS
CHEWINGS RED FESCUE	20 PARTS
KENTUCKY 31 TALL FESCUE	15 PARTS
ROUGH BLUEGRASS	10 PARTS
BARON BLUEGRASS	20 PARTS

SEED MIXTURE FOR PLANTING MAY 1 TO LATE SUMMER. SOW AT A RATE OF 6 LBS/1000 S.F.

CREEPING RED FESCUE	35 PARTS
CHEWINGS RED FESCUE	20 PARTS
KENTUCKY 31 TALL FESCUE	20 PARTS
DOMESTIC RYEGRASS	25 PARTS

C. SLOPE MIX

SOW AT RATE OF 6 LBS/1000 S.F.

CREEPING RED FESCUE	42 PARTS
FIESTA II PERENNIAL RYEGRASS	34 PARTS
RED TOP	8 PARTS
ALSIKE CLOVER	8 PARTS
BIRDSFOOT TREFOIL	8 PARTS

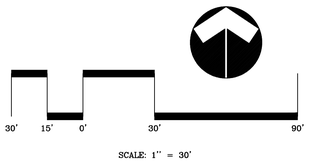
D. DETENTION BASIN MIX

USE "RETENTION BASIN FLOOR SEED" FROM NEW ENGLAND SEED CO. AT A RATE OF 2LB./1000 S.F. MIX WITH ANNUAL RYEGRASS AT A RATE OF 1/2LB./1000 S.F.

E. MEADOW MIX

USE NEW ENGLAND SEED CO. "NEW ENGLAND HORSE PASTURE MIXTURE" AT A RATE OF 100 LB./ACRE. MIX WITH VERMONT WILDFLOWER FARM [(802) 425-3500] DROUGHT TOLERANT PERENNIAL MIX AT A RATE OF 51 LB./ACRE. MIX WITH 20% ADDITIONAL COMMON TALL FESCUE.

33 SEEDING OPERATIONS & MIXES
N.T.S.



SCALE: 1" = 30'

LEGEND

- PROPERTY LINE
- WETLAND LINE
- 100' UPLAND REVIEW AREA
- PROPOSED DECIDUOUS TREE
- PROPOSED FLOWERING TREE
- PROPOSED EVERGREEN TREE
- PROPOSED SHRUB
- PLANT LABEL & COUNT (ZZ 1)
- EXISTING TREELINE
- DETENTION BASIN MIX
- LAWN SEED MIX
- SLOPE MIX
- MEADOW MIX

STATE OF CONNECTICUT · DEBRI-ANN P. HAMM · NO. 593 · REGISTERED LANDSCAPE ARCHITECT

Side Buffer Planting

Sym.	Quan.	Botanical Name	Common Name	Size	Root
PG	8	PICEA GLAUCA	WHITE SPRUCE	5ft.-6ft. Ht.	B&B
MP	12	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	24in.-30in. Ht.	CONT.
PJM	24	RHODODENDRON 'PJM'	PJM RHODODENDRON	24in.-30in. Ht.	CONT.

Building Area Planting

Sym.	Quan.	Botanical Name	Common Name	Size	Root
AR	2	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	3in.-3 1/2in. CAL	B&B
CC	3	CERCIS CANADENSIS	EASTERN REDBUD	2in-2 1/2in. CAL	B&B
GTH	2	GLEDITSIA TRIACANTHOS 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	3in.-3 1/2in. CAL	B&B
JV	12	JUNIPERUS VIRGINIANA 'EMERALD SENTINEL'	EMERALD SENTINEL EASTERN RED-CEDAR	5ft.-6ft. Ht.	B&B
LT	2	LIRIODENDRON TULIPIFERA	TULIPTREE	3in.-3 1/2in. CAL	B&B
PCC	2	PYRUS CALLERYANA 'CHANTICLEER'	ORNAMENTAL PEAR	3in.-3 1/2in. CAL	B&B
PSK	2	PRUNUS SERRULATA 'KWANZAN'	KWANZAN CHERRY	3in.-3 1/2in. CAL	B&B
TOS	37	THUJA OCCIDENTALIS 'NIGRA'	DARK AMERICAN ARBORVITAE	4ft.-5ft. Ht.	B&B
QWL	3	QUERCUS X WAREI 'LONG'	REGAL PRINCE OAK - FASTIGIATE FORM	3in.-3 1/2in. CAL	B&B

Habitat Planting

Sym.	Quan.	Botanical Name	Common Name	Size	Root
LS	1	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEETGUM	3in.-3 1/2in. CAL	B&B
LT	1	LIRIODENDRON TULIPIFERA	TULIPTREE	3in.-3 1/2in. CAL	B&B
NS	1	NYSSA SYLVATICA	BLACK TUPELO	3in.-3 1/2in. CAL	B&B
QR	1	QUERCUS RUBRA	RED OAK	2in.-2 1/2in. CAL	B&B
AMC	3	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY - MULTISTEM SHRUB FORM	4ft.-5ft.	CONT.
CLR	28	CLETHRA ALNIFOLIA 'RUBY SPICE'	RUBY SPICE SUMMERSWEET	24in.-30in. Ht.	CONT.
VB	12	VIBURNUM X BURKWOODII	BURKWOOD VIBURNUM	24in.-30in. Ht.	CONT.
VD	24	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	24in.-30in. Ht.	CONT.
AP	40	ADIANTUM PEDATUM	MAIDENHAIR FERN		CONT.
DP	20	DENNSTAEDTIA PUNCTILOBULA	HAY SCENTED FERN		CONT.
OC	20	OSMUNDA CINNAMOMEA	CINNAMON FERN		CONT.

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Brewster, NY 10509 (845) 278-7424
Email: lada@ladapc.com

REVISIONS

BY: DFM	CHK: TPH

The Learning Experience
Property Of
501 Talcottville Road, LLC
501 Talcottville Road
Vernon, Connecticut 06010
Parcel ID: 09-0007-0001D (Zone: C)

Planting Plan

DATE 04-06-2022
SCALE 1"=30'
JOB NUMBER 2021-083
SHEET 7 of 12

PERMANENT SEEDING (PS)

SPECIFICATIONS

Time Of Year

Seeding dates in Connecticut are normally April 1 through June 15 and August 15 through October 1. Spring seedings give the best results and spring seedings of all mixes with legumes is recommended. There are two exceptions to the above dates. The first exception is when seedings will be made in the areas of Connecticut known as the Coastal Slope and the Connecticut River Valley. The Coastal Slope includes the coastal towns of New London, Middlesex, New Haven, and Fairfield counties. In these areas, with the exception of crown vetch (when crown vetch is seeded in late summer, at least 35% of the seed should be hard seed (unscarified), the final fall seeding dates can be extended and additional 15 days. The second exception is frost crack or dormant seeding, the seed is applied during the time of year when no germination can be expected, normally November through February. Germination will take place when weather conditions improve, mulching is extremely important to protect the seed from wind and surface erosion and to provide erosion protection until the seeding becomes established.

Site Preparation

Grade in accordance with the Land Grading measure which is in the Connecticut Guidelines For Soil Erosion and Sediment Control latest edition.

Install all necessary surface water controls.

For areas to be mowed remove all surface stones 2 inches or larger. Remove all other debris such as wire, cable tree roots, pieces of concrete, clods, lumps, or other unsuitable material.

Seed Selection

Lawn Areas: Premium Seed Mix for Sun and Shade.
Stormwater Basin: New England Erosion Control/Restoration Mix by New England Wetland Plants, Inc. or approved equal.

Seedbed Preparation

Apply topsoil, if necessary, in accordance with the Topsoiling measure which is in the Connecticut Guidelines For Soil Erosion and Sediment Control latest edition.

Apply ground limestone and fertilizer according to soil test recommendations (such as those offered by the University of Connecticut Soil Testing Laboratory or other reliable source).

Where soil testing is not feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 300 pounds per acre or 7.5 pounds per 1,000 square feet of 10–10–10 or equivalent and limestone at 4 tons per acre or 200 pounds per 1,000 square feet.

Work lime and fertilizer into the soil to a depth of 3 to 4 inches with a disc or other suitable equipment.

Inspect seedbed just before seeding. If the soil is compacted, crusted or hardened, scarify the area prior to seeding.

Seed Application

Apply selected seed at rates per manufacturer's recommendations uniformly by hand, cyclone seeder, drill, cultipacker type seeder or hydroseeder (slurry including seed, fertilizer). Normal seeding depth is from 0.25 to 0.5 inch. Increase seeding rates by 10% when hydroseeding or frost crack seeding. Seed warm season grasses during the spring period only.

Mulching

See guidelines in the Mulch For Seed measures.

MAINTENANCE

Inspect temporary soil protection area at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater during the first growing season.

Where seed has been moved or where soil erosion has occurred, determine the cause of the failure and repair as needed.

TEMPORARY SEEDING (TS)

SPECIFICATIONS

Site Preparation

Install needed erosion control measures such as diversions, grade stabilization structures, sedimentation basins and grassed waterways in accordance with the approved plan.

Grade according to plans and allow for the use of appropriate equipment for seedbed preparation, seeding, mulch application and mulch anchoring.

Seedbed Preparation

Loosen the soil to a depth of 3–4 inches with a slightly roughened surface. If the area has been recently loosened or disturbed, no further roughening is required. Soil preparation can be accomplished by tracking with a bulldozer, discing harrowing, raking or dragging with a section of chain link fence.

Apply ground limestone and fertilizer according to soil test recommendations (such as those offered by the University of Connecticut Soil Testing Laboratory or other reliable source).

If soil testing is not feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 300 pounds per acre or 7.5 pounds per 1,000 square feet of 10–10–10 or equivalent.

Seeding

Apply seed uniformly by hand, cyclone seeder, drill, cultipacker type seeder or hydroseeder. The temporary seed shall be Rye (grain) applied at a rate of 120 pounds per acre. Increase seeding rates by 10% when hydroseeding.

Mulching

See guidelines in the Mulch For Seed measures.

MAINTENANCE

Inspect temporary seeding area at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater for seed and mulch movement and rill erosion.

Where seed has been moved or where soil erosion has occurred, determine the cause of the failure and repair as needed.

MULCH FOR SEED (MS)

SPECIFICATIONS

Materials

Types of Mulches *within this specification include, but are not limited to:*

1. Hay: *The dried stems and leafy parts of plants cut and harvested, such as alfalfa, clovers, other forage legumes and the finer stemmed, leafy grasses. The average stem length should not be less than 4 inches. Hay that can be windblown should be anchored to hold it in place.*

2. Straw: *Cut and dried stems of herbaceous plants, such as wheat, barley, cereal rye, or brome. The average stem length should not be less than 4 inches. Straw that can be windblown should be anchored to hold it in place.*

3. Cellulose Fiber: *Fiber origin is either virgin wood, post–industrial/pre–consumer wood or post consumer wood complying with materials specification (collectively referred to as "wood fiber"), newspaper, kraft paper, cardboard (collectively referred to as "paper fiber") or a combination of wood and paper fiber. Paper fiber, in particular, shall not contain boron, which inhibits seed germination. The cellulose fiber must be manufactured in such a manner that after the addition to and agitation in slurry tanks with water, the fibers in the slurry become uniformly suspended to form a homogeneous product. Subsequent to hydraulic spraying on the ground, the mulch shall allow for the absorption and percolation of moisture and shall not form a tough crust such that it interferes with seed germination or growth. Generally applied with tackifier and fertilizer. Refer to manufacturer's specifications for application rates needed to attain 80%–95% coverage without interfering with seed germination or plant growth. Not recommended as a mulch for use when seeding occurs outside of the recommended seeding dates.*

Tackifiers *within this specification include, but are not limited to: Water soluble materials that cause mulch particles to adhere to one another, generally consisting of either a natural vegetable gum blended with gelling and hardening agents or a blend of hydrophilic polymers, resins, viscosifiers, sticking aids and gums. Good for areas intended to be mowed. Cellulose fiber mulch may be applied as a tackifier to other mulches, provided the application is sufficient to cause the other mulches to adhere to one another.* ***Emulsified asphalts are specifically prohibited for use as tackifiers due to their potential for causing water pollution following its application.***

Nettings *within this specification include, but are not limited to: Prefabricated openwork fabrics made of cellulose cords, ropes, threads, or biodegradable synthetic material that is woven, knotted or molded in such a manner that it holds mulch in place until vegetation growth is sufficient to stabilize the soil. Generally used in areas where no mowing is planned.*

Site Preparation

Grade according to plans and allow for the use of appropriate equipment for seedbed preparation, seeding, mulch application and mulch anchoring.

Application

Timing: *Applied immediately following seeding. Some cellulose fiber may be applied with seed to assist in marking where seed has been sprayed, but expect to apply a second application of cellulose fiber to meet the requirements of* ***Mulch For Seed*** *in the Connecticut Guidelines For Soil Erosion and Sediment Control latest edition.*

Spreading: *Mulch material shall be spread uniformly by hand or machine resulting in 80%–95% coverage of the disturbed soil when seeding within the recommended seeding dates. Applications that are uneven can result in excessive mulch smothering the germinating seeds. For hay or straw anticipate an application rate of 2 tons per acre. For cellulose fiber follow manufacture's recommended application rates to provided 80%–95% coverage.*

When seeding outside the recommended seeding dates, increase mulch application rate to provide between 95%–100% coverage of the disturbed soil. For hay or straw anticipate an application rate to 2.5 to 3 tons per acre.

When spreading hay mulch by hand, divide the area to be mulched into approximately 1,000 square feet and place 1.5–2 bales of hay in each section to facilitate uniform distribution.

For cellulose fiber mulch, expect several spray passes to attain adequate coverage, to eliminate shadowing, and to avoid slippage.

Anchoring: *Expect the need for mulch anchoring along the shoulders of actively traveled roads, hill tops and long open slopes not protected by wind breaks.*

When using netting, the most critical aspect is to ensure that the netting maintains substantial contact with the underlying mulch and the mulch, in turn, maintains continuos contact with the soil surface. Without such contact, the material is useless and erosion can be expected to occur.

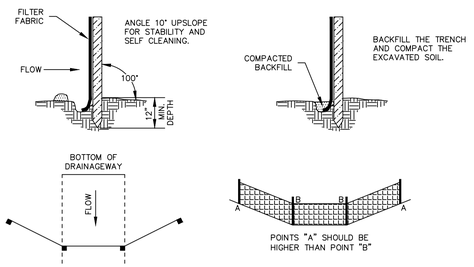
MAINTENANCE

Inspect mulch for seed area at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater until the grass has germinated to determine maintenance needs.

Where mulch has been moved or where soil erosion has occurred, determine the cause of the failure and repair as needed.

SOIL ERSOION & SEDIMENT CONTROL NOTES

1. *The contractor/developer shall notify the Town Staff prior to construction in accordance with the local approvals and permits.*
2. *All soil erosion and sediment control work shall be done in strict accordance with the Connecticut Guidelines For Soil Erosion and Sediment Control latest edition.*
3. *Any additional erosion/sediment control deemed necessary by the engineer during construction, shall be installed by the developer. In addition, the developer shall be responsible for the repair/replacement and/or maintenance of all erosion control measures until all disturbed areas are stabilized to the satisfaction of the town staff.*
4. *All soil erosion and sediment control operations shall be in place prior to any grading operations and installation of proposed structures or utilities and shall be left in place until construction is completed and/or area is stabilized.*
5. *In all areas, removal of trees, bushes and other vegetation as well as disturbance of the soil is to be kept to an absolute minimum while allowing proper development of the site. During construction, expose as small an area of soil as possible for as short a time as possible.*
6. *The developer shall practice effective dust control per the soil conservation service handbook during construction and until all areas are stabilized or surface treated. The developer shall be responsible for the cleaning of nearby streets of any debris from these construction activities.*
7. *All fill areas shall be compacted sufficiently for their intended purpose and as required to reduce slipping, erosion or excess saturation. Fill intended to support buildings, structures, conduits, etc., shall be compacted in accordance with local requirements or codes.*
8. *Topsoil is to be stripped and stockpiled in amounts necessary to complete finished grading of all exposed areas requiring topsoil. The stockpiled topsoil is to be located as designated on the plans. Topsoil shall not be placed while in a frozen or muddy condition, when the subgrade is excessively wet, or in a condition that may otherwise be detrimental to proper grading or proposed sodding or seeding.*
9. *Any and all fill material is to be free of brush, rubbish, timber, logs vegetative matter and stumps in amounts that will be detrimental to constructing stable fills. Maximum side slopes of exposed surfaces of earth to be 3:1 or as otherwise specified by local authorities.*
10. *Soil stabilization should be completed within 5 days of clearing or inactivity in construction.*
11. *Waste Materials – All waste materials (including wastewater) shall be disposed of in accordance with local, state and federal law. Litter shall be picked up at the end of each work day.*
12. *The Contractor shall maintain on–site additional erosion control materials as a contingency in the event of a failure or when required to shore up existing BMPs. At a minimum, the on–site contingency materials should include 30 feet of silt fence and 5 straw haybales with 10 stakes.*

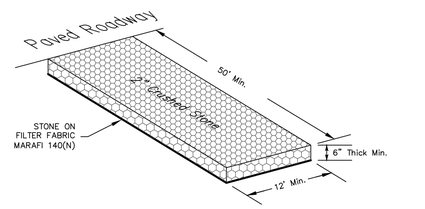


PLAN VIEW ELEVATION

SOURCE: U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, STORRS, CONNECTICUT

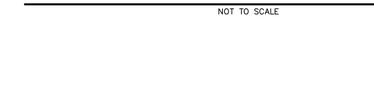
GEOTEXTILE SILT FENCE (GSF)

NOT TO SCALE



ANTI-TRACKING EXIT PAD DETAIL (CE)

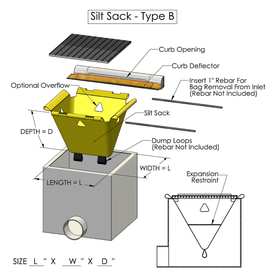
NOT TO SCALE



NOTE: MAY BE USED AS ALTERNATIVE TO GEOTEXTILE SILT FENCE.

PERIMETER SEDIMENT BARRIER

NOT TO SCALE



ACF ENVIRONMENTAL
2831 Cardwell Road
Richmond, VA 23234
WWW.ACFENVIRONMENTAL.COM

NOTE:
SILT SACK SHALL BE SIZED TO FIT EACH INLET GRATE (SINGLE OR DOUBLE) AND SHALL BE CLEANED AND MAINTAINED UNTIL THE CONTRIBUTING WATERSHED IS STABILIZED WITH VEGETATION AND/OR COMPACTED PROCESSED STONE BASE.

CB GRATE INLET PROTECTION (SILT SACK)

NOT TO SCALE

CHECKLIST FOR EROSION CONTROL PLAN

PROJECT: The Learning Experience Academy of Education

LOCATION: 501 Talcottville Road, Vernon, CT

PROJECT DESCRIPTION: Construction of a Daycare Facility

PARCEL AREA: 2.0 acres

RESPONSIBLE PERSONNEL: Eric Spungin (860) 989–9494

EROSION AND SEDIMENT CONTROL PLAN PREPARER: J.R. Russo & Associates, LLC

CHECKLIST:

Work Description Erosion & Sediment Control Measures	Location	Date Installed	Initials	Date Removed	Initials
Install construction entrance	As shown on plan.				
Install perimeter sediment barriers	As shown on plan.				
Install inlet protection at CBs	As installed				

MAINTENANCE OF MEASURES:

Location	Description or Number	Date	Initials

Project Dates:

Date of groundbreaking for project:

Date of final stabilization:

PROJECT NARRATIVE AND CONSTRUCTION SEQUENCE

This project is located at 501 Talcottville Road in Vernon, Connecticut. The proposed activity is the construction of a 10,000 square foot daycare facility. The suggested schedule of construction is as follows:

1. Install construction anti–tracking pad (CE).
2. Install sediment barriers (GSF) at project perimeters.
3. Strip topsoil. Stockpile suitable amount of topsoil for reuse on–site in areas shown. Stockpiles shall be surrounded by sediment barriers (GSF).
4. Install retaining walls. Place and compact fill to establish subgrades coincident with retaining wall construction.
5. Begin building construction.
6. Construction stormwater management basin, excavate wetland creation area, and install drainage. Seed basin and wetland creation areas as soon as practicable.
7. Install other site utilities.
8. Install parking lot and driveway base.
9. Install concrete sidewalks and dumpster pad.
10. Pave binder course.
11. Stabilize remaining areas to receive topsoil and permanently seed as soon as possible.
12. Install landscaping & wetland enhancement plantings.
13. Install pavement top course in all areas. Sweep binder course and apply tack coat prior to placing pavement top course.
14. Apply paint striping.
15. Remove sediment barriers after site is fully stabilized.

Construction of this site is anticipated to begin in the spring of 2022 and be complete by January 2023, pending approvals. Temporary erosion control measures shall be installed prior to any soil disturbance and maintained throughout construction until soils have been stabilized with permanent vegetation.

The Contractor shall keep the area of disturbance to a minimum and establish vegetative cover on exposed soils as soon as practical. All soil and erosion control measures shall be installed and maintained in accordance with these plans and the "Connecticut DEP Guidelines for Soil Erosion and Sediment Control", as amended. The Contractor shall verify all conditions noted on the plans and shall immediately notify the Engineer of any discrepancies.

The developer shall be responsible for the repair/replacement/maintenance of all erosion control measures until all disturbed areas are stabilized. Accumulated sediment shall be removed as required to keep silt fence functional. In all cases, deposits shall be removed when the accumulated sediment has reached one–half above the ground height of the silt fence. This material is to be spread and stabilized in areas not subject to erosion, or to be used in areas which are not to be paved or built on. Silt fence (GSF) is to be replaced as necessary to maintain proper filtering action. Silt fence (GSF) are to remain in place and shall be maintained to insure efficient sediment capture until all areas above the erosion checks are stabilized and vegetation has been established.

POST CONSTRUCTION MAINTENANCE NOTES:

The property owner shall be responsible for performing the following post construction maintenance schedule:

1. Maintain lawn & landscape areas with minimal pesticides.
2. Sweep parking lot and paved areas at least once per year in the spring.
3. Inspect catch basins and storm manholes at least twice per year, including after sweeping. Clean at least once per year in April and as necessary to prevent the discharge of pollutants from structures. Remove accumulated oil, trash and excessive sediment with vac–truck. Check condition of hoods (if applicable).
4. Inspect infiltration basin annually for evidence of hydrocarbons and remove by vac–truck. Repair eroded areas and replace riprap and vegetation as required. Dredge bottom of forebay to remove accumulated sediment every 10 years or when significant volume reduction is observed. Mow infiltration basin on a regular basis to maintain as lawn area for filtering of pollutants. Inspect inlet pipes monthly and remove trash and debris as needed.

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J.R. Russo & Associates, LLC
1 Shoreham Rd East Windsor, CT 06088 • CT 860.633.0569 • MA 413.785.1158
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Applicant
Vernon Development LLC
56 East Main Street
Avon, Connecticut 06001

REVISIONS

BY:	CHK:
LF/TAC	JEU

3–26–2022	TALCOTTVILLE RD ENTRANCE, APPLY VARIANCES
2–14–2022	PAGE NUMBERS

The Learning Experience
Property Of
501 Talcottville Road, LLC
501 Talcottville Road
Vernon, Connecticut 06010
Parcel ID: 09–0007–0001D (Zone: C)

Erosion & Sediment Control Notes
(ALT 2)

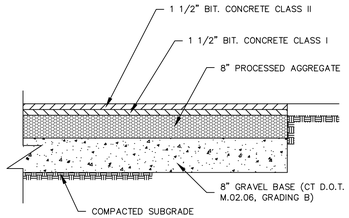
DATE
1–11–22

SCALE
1"=20'

JOB NUMBER
2021–083

SHEET
8 of 12

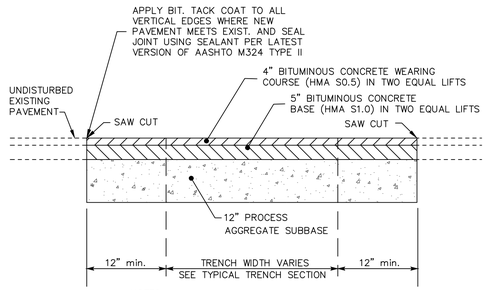
S:\Acad\2021 Civil 3D\2021-083 Vernon Development - 501 Talcottville Rd\Russo Drawings\2021-083 B - Pushed forward.dwg



NOTE: WHERE SUBGRADES ARE ON WET SILT OR CLAY, CONTRACTOR TO INSTALL ADDITIONAL 12" OF ¾" CRUSHED STONE ON TENSAR TRIAX GEOGRID BELOW GRAVEL SUBBASE.

PAVEMENT DETAIL

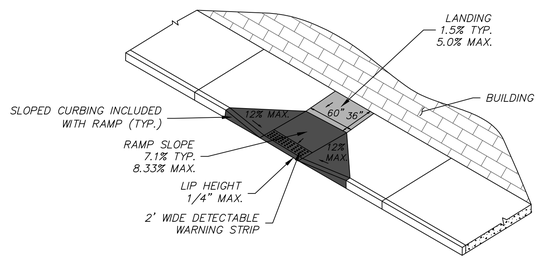
NOT TO SCALE



NOTES:
1. All saw cut and sealed joints to be wither parallel with, or perpendicular to, the center–line of the pipe.
2. All materials are to meet Conn. D.O.T. Form 817, latest edition.
3. Pavement materials shall be provided by the same vendor.

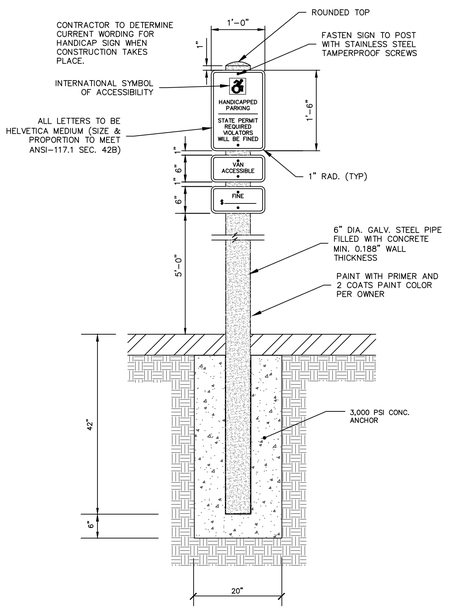
PERMANENT PAVEMENT PATCH (STATE HIGHWAY)

NOT TO SCALE



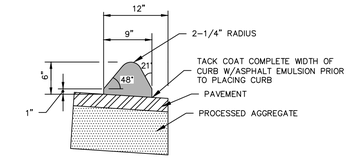
SIDEWALK RAMP (TYPE A)

NOT TO SCALE



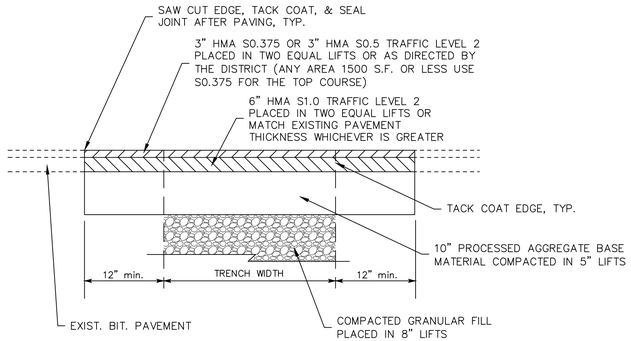
HANDICAP SIGN & BOLLARD

NOT TO SCALE



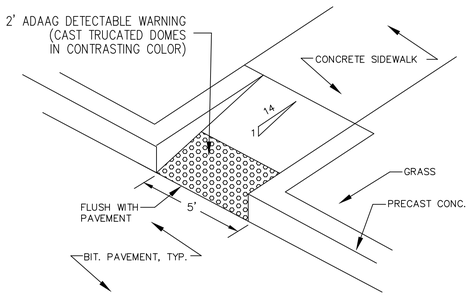
BITUMINOUS CONCRETE LIP CURBING

NOT TO SCALE



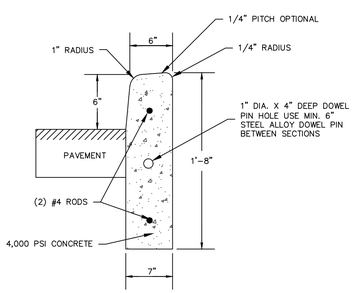
PERMANENT PAVEMENT PATCH (STATE HIGHWAY)

NOT TO SCALE



SIDEWALK RAMP (TYPE B)

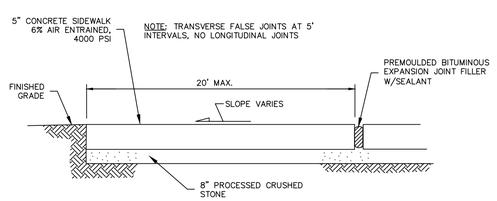
NOT TO SCALE



NOTE:
1. SPACE JOINTS 10'±, BUT NO LESS THAN 6'.

PRE-CAST CONCRETE CURB

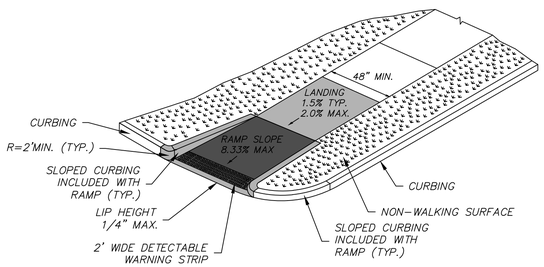
NOT TO SCALE



NOTE: EXPANSION JOINTS TO BE PLACED BETWEEN ADJACENT SLABS, AT BUILDING LINE, AT CURBS, OR AT PENETRATING STRUCTURES.

TYPICAL SIDEWALK DETAIL

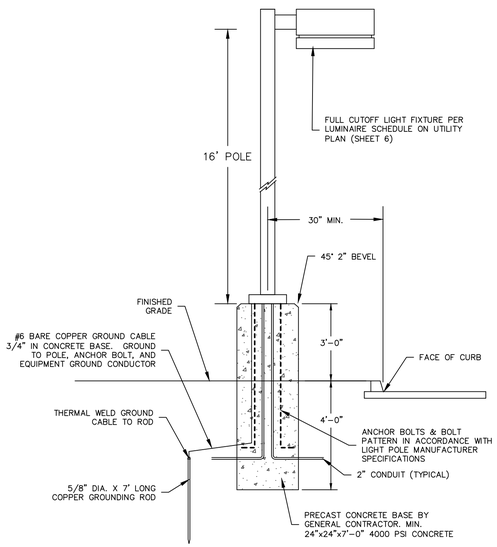
NOT TO SCALE



SINGLE DIRECTION – RETURN CURB WITH NON–WALKING SURFACE

DOT SIDEWALK RAMP (TYPE I6)

NOT TO SCALE



POLE MOUNTED EXTERIOR LIGHT

NOT TO SCALE

RUSSO
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J.R. Russo & Associates, LLC
1 Shoham Rd. East Windsor, CT 06088 • CT: 860.623.2569 • MA: 413.785.1158
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Applicant
Vernon Development LLC
56 East Main Street
Avon, Connecticut 06001

REVISIONS		
2–14–2022	PAGE NUMBERS	
3–26–2022	TALCOTTVILLE RD ENTRANCE, APPLY VARIANCES	
BY: LF/TAC	CHK: JEU	

The Learning Experience
Property Of
501 Talcottville Road, LLC
501 Talcottville Road
Vernon, Connecticut 06010
Parcel ID: 09–0007–0001D (Zone: C)

Details
(ALT 2)

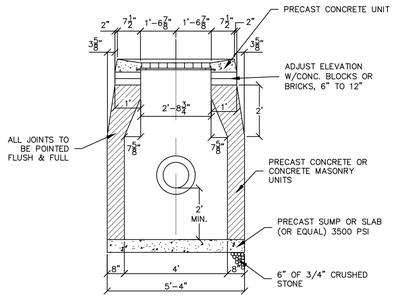
DATE
1–11–22

SCALE
1"=20'

JOB NUMBER
2021–083

SHEET
9 of 12

S:\Acad\2021 Civil 3D\2021-083 Vernon Development - 501 Talcottville Rd\Russo Drawings\2021-083 B - Pushed forward.dwg



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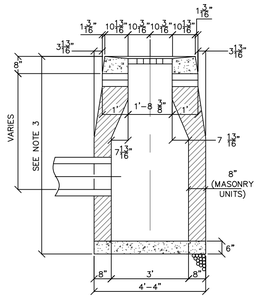
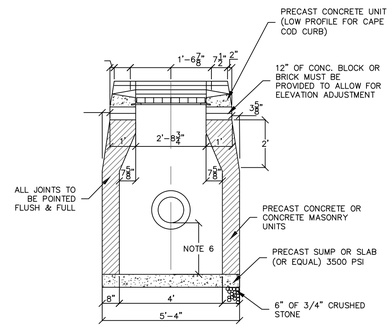


SIDE ELEVATION

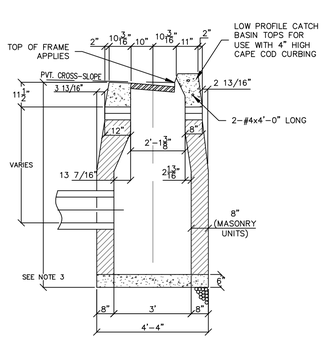
NOTES:
1. MINIMUM COVER OVER TOP OF PIPE SHALL BE 1'-0".
2. WALL THICKNESS SHALL BE SUFFICIENT TO MEET HS 20 LOADING.
3. WALL THICKNESS FOR STRUCTURES OVER 10' HIGH IS 12" FOR CONCRETE BLOCK UNITS, INSIDE DIMENSIONS REMAIN THE SAME.
4. ALL PIPES SHALL BE CUT FLUSH WITH INSIDE WALLS.
5. ALL BRICKS SHALL BE CONCRETE.

TYPE "CL" CATCH BASIN

NOT TO SCALE



FRONT ELEVATION

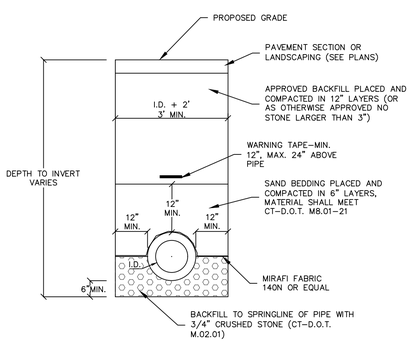


SIDE ELEVATION

NOTES:
1. MINIMUM COVER OVER TOP OF PIPE SHALL BE 2'-0".
2. WALL THICKNESS SHALL BE SUFFICIENT TO MEET HS 20 LOADING.
3. WALL THICKNESS FOR STRUCTURES OVER 10' HIGH IS 12" FOR CONCRETE BLOCK UNITS, INSIDE DIMENSIONS REMAIN THE SAME.
4. ALL PIPES SHALL BE CUT FLUSH WITH INSIDE WALLS.
5. ALL BRICKS SHALL BE CONCRETE.
6. ALL CATCH BASIN SUMPS SHALL BE MIN. 2' BELOW THE OUTLET INVERT WITH THE EXCEPTION OF CB6 WHICH SHALL HAVE A 4' SUMP.

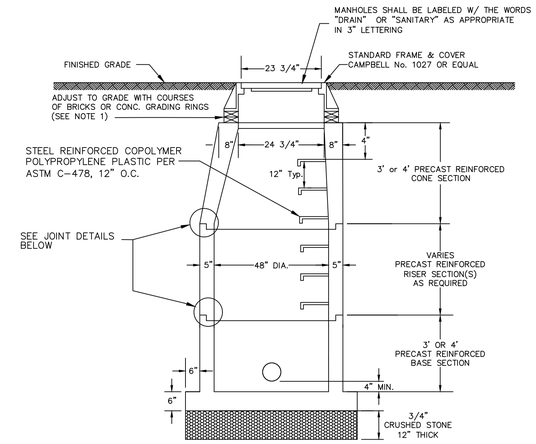
TYPE "C" CATCH BASIN

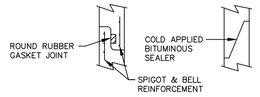
NOT TO SCALE



STANDARD STORM DRAIN DETAIL

NOT TO SCALE





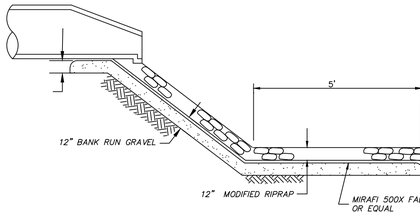
GASKET JOINT N.T.S.

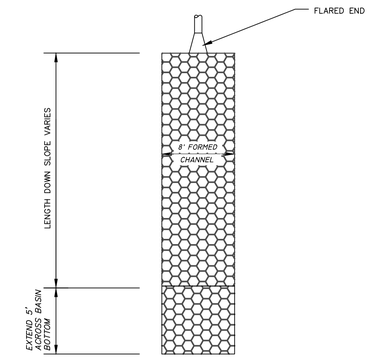
ALTERNATE JOINT N.T.S.

NOTES:
1. *MINIMUM COVER OVER TOP OF PIPE SHALL BE 2'-0" UNLESS OTHERWISE APPROVED BY THE ENGINEER.*
2. *TOP STEP TO BE A MAXIMUM OF 24" BELOW TOP OF MANHOLE FRAME & COVER.*
3. *WALL THICKNESS SHALL BE SUFFICIENT TO MEET HS 20 LOADING.*
4. *MANHOLE INSIDE DIAMETER MAY BE INCREASED AS DIRECTED BY THE ENGINEER TO ACCOMMODATE SIZE AND NUMBER OF PIPES. INCREASE WALL THICKNESS 1" FOR EACH 1 FT. OF INSIDE DIAMETER INCREASE.*
5. *FOR SHALLOW STRUCTURES, USE 8" SLAB IN PLACE OF CONE SECTION.*
6. *ALL PIPES SHALL BE CUT FLUSH WITH INSIDE WALLS.*
7. *FILL LIFTING HOLES WITH MORTAR.*

PRECAST CONCRETE MANHOLE

NOT TO SCALE





CHANNEL INTO STORMWATER BASIN

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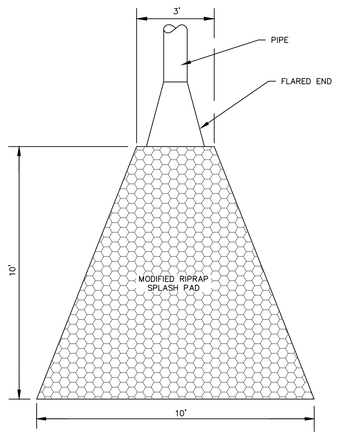
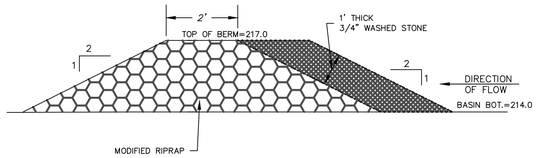


NOTE:
MODIFIED RIPRAP APRON (12" THICK) ON 6" GRANULAR BASE (M.02.01) ON MIRAFI 140N FABRIC OR EQUAL

TYPE A RIPRAP APRON (OP)

N.T.S.



STONE FILTER BERM

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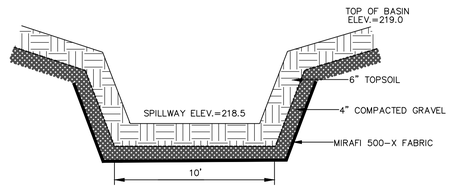
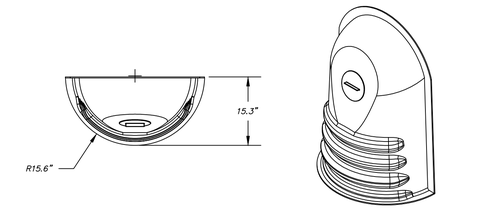
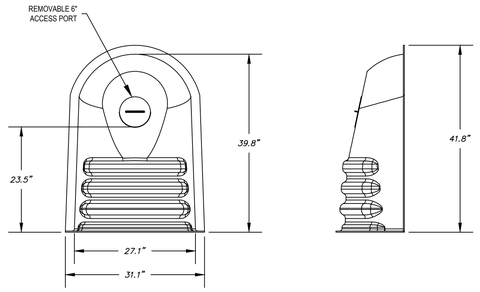


EARTHEN SPILLWAY

NOT TO SCALE





NOTES:
1. *HIGH DENSITY POLYETHYLENE NYROPLAST ENVIROHOOD MODEL 24F FOR FLAT CONCRETE STRUCTURES.*
2. *INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.*

NYROPLAST ENVIROHOOD DETAIL

NOT TO SCALE

RUSSO SURVEYORS·ENGINEERS SERVING CT & MA
J.R. Russo & Associates, LLC
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Applicant
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Avon, Connecticut 06001

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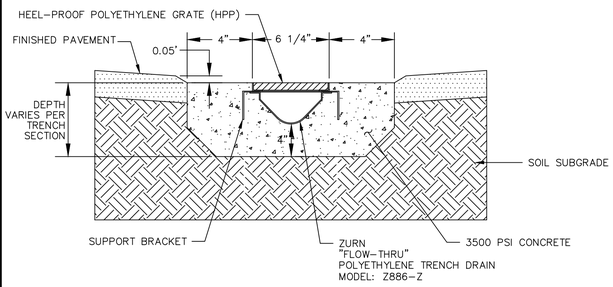
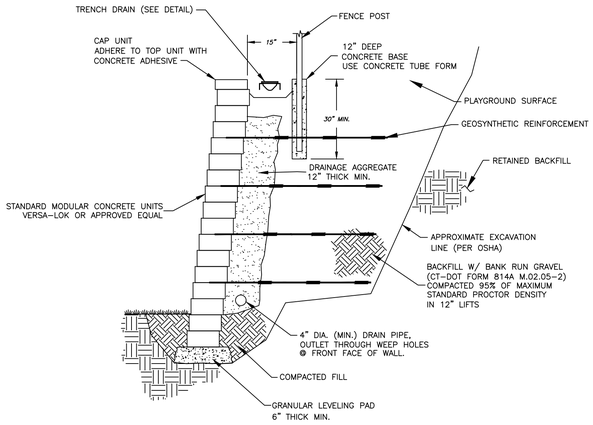


NOTE:
1. USE CHANNELS NO. 8601 – 8615 FOR 120' TRENCH LENGTH
2. CONNECT TRENCH TO OUTLET PIPE WITH U6 OUTLET ADAPTER AND 6" SCH40 PVC WITH 90° BEND.
3. SET CONCRETE, FRAME & GRATE SYSTEM 0.05' BELOW FINISHED PAVEMENT GRADE, AS SHOWN ABOVE.

TRENCH DRAIN DETAIL

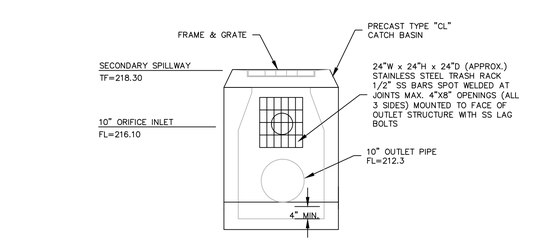
NOT TO SCALE



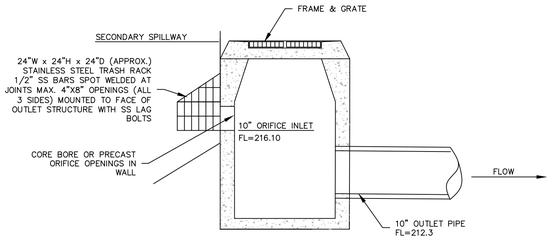
NOTE: CONTRACTOR TO OBTAIN FINAL WALL DESIGN PLANS PREPARED BY PROFESSIONAL ENGINEER LICENSED IN CT. FINAL SHOP DRAWINGS TO BE SUBMITTED TO SITE ENGINEER FOR APPROVAL.

TYPICAL SECTION REINFORCED RETAINING WALL

NOT TO SCALE



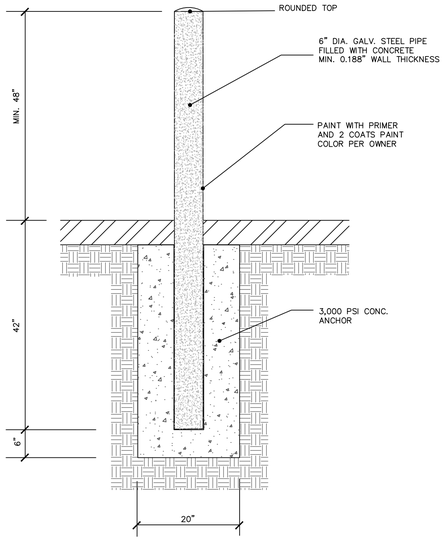
FRONT VIEW



SIDE SECTION VIEW

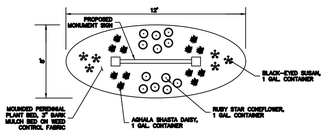
BASIN OUTLET STRUCTURE

NOT TO SCALE



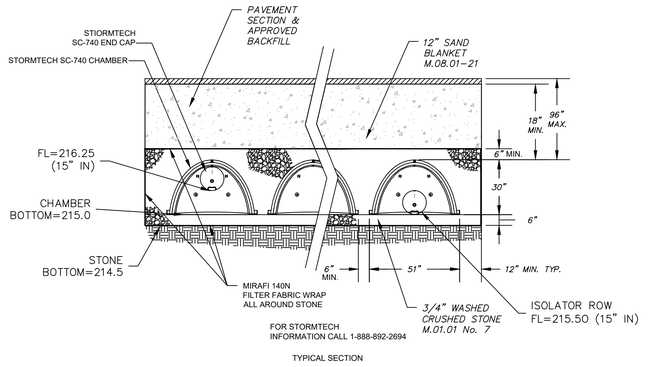
PIPE BOLLARD

NOT TO SCALE

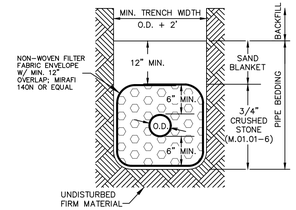


MONUMENT SIGN ISLAND

NOT TO SCALE



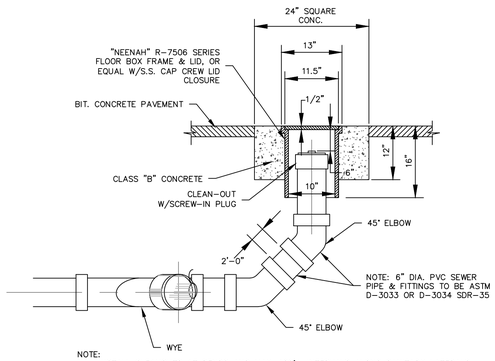
TYPICAL SECTION



NOTES:
1. PROVIDE WARNING TAPE, 12-24" ABOVE TOP OF PIPE.
2. BACKFILL SHALL BE SUITABLE NATIVE MATERIAL UNLESS DETERMINED TO BE UNSUITABLE BY THE ENGINEER OR GRANULAR FILL M.02.01 PLACED AND COMPACTED IN 12" LOOSE LIFTS.
3. UNDER PAVED AREAS COMPACT BACKFILL TO 95% OF THE MATERIAL'S MAXIMUM DRY DENSITY AS DETERMINED BY A STANDARD PROCTOR TEST. UNDER UNPAVED AREAS COMPACT TO 90%.
4. UNSUITABLE TRENCH MATERIAL TO BE REMOVED AND REPLACED WITH 3/4" CRUSHED STONE AS DIRECTED BY ENGINEER.

TYPICAL SANITARY SEWER TRENCH SECTION

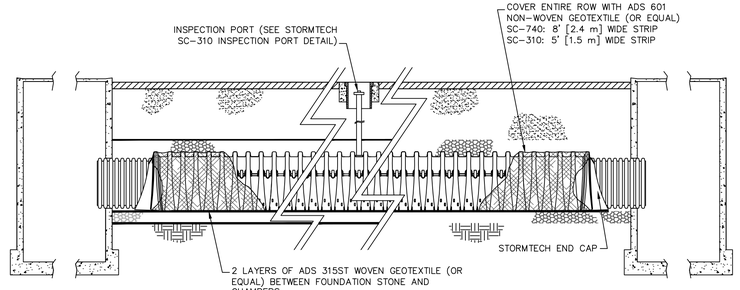
NOT TO SCALE



NOTE:
1. INSTALL CLEANOUTS AT BENDS AND MAX. 100'± INTERVALS ALONG SANITARY LATERALS.

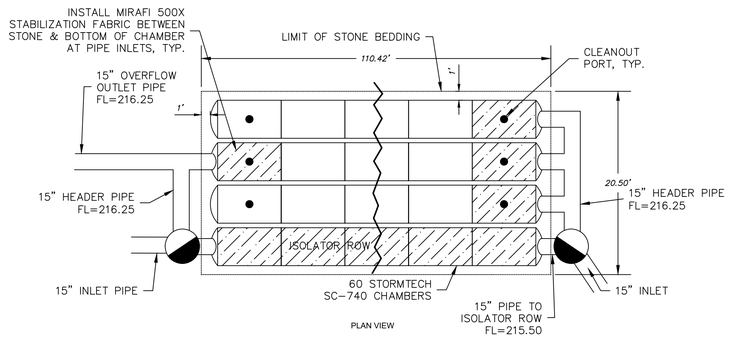
CLEAN-OUT

NOT TO SCALE



STORMTECH ISOLATOR ROW PROFILE

NOT TO SCALE



PLAN VIEW

STORMTECH CHAMBER SUBSURFACE DETENTION SYSTEM

NOT TO SCALE

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Applicant
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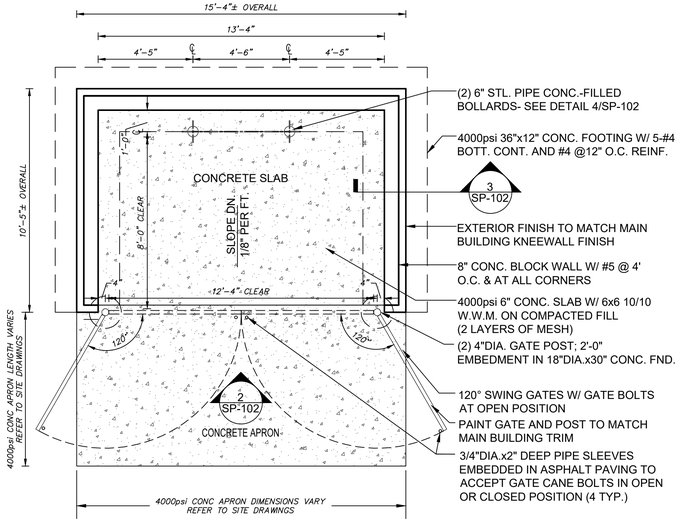
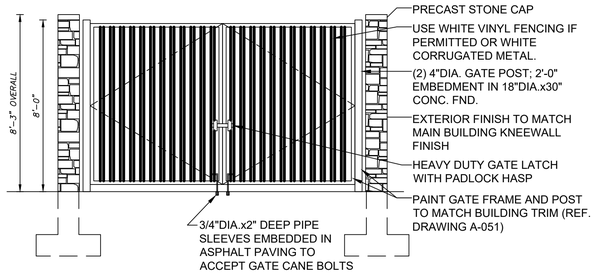
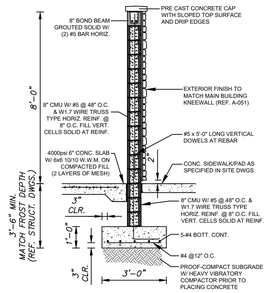






TABLES OF PLANTING MATERIALS FOR WETLAND CREATION & ENHANCEMENT AREAS
501 TALCOTVILLE ROAD, VERNON, CONNECTICUT

Table 1. Shrubs

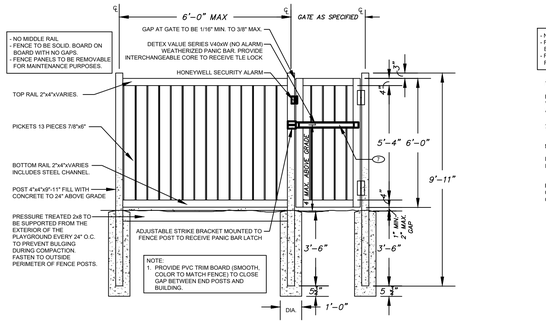
Scientific Name	Zone	Common Name	Size	Shade tolerant?	Wetland Creation Area	Wetland Enhancement Area	Totals
SHRUBS							
Photinia pyrifolia	C	Chokeberry	3'-4'	N	0	4	4
Clethra alnifolia	B,C	Sweet pepperbush	3'-4'	Y	4	0	4
Ilex verticillata	A,B,C	Winterberry	3'-4'	Y	3	2	5
Sambucus nigra	B	Common elderberry	3'-4'	N	0	2	2
Swida amomum	B,C	Silky dogwood	3'-4'	N	0	3	3
Swida racemosum	B,C	Gray dogwood	3'-4'	Y	5	2	7
Vaccinium corymbosum	B,C	Highbush blueberry	3'-4'	Y	2	0	2
Viburnum cassinoides	B	Wild raisin	3'-4'	Y	2	0	2
Viburnum opulus	B,C	Cranberry viburnum	3'-4'	Y	0	3	3
Totals:					***16***	***16***	32

Table 2. Herbs

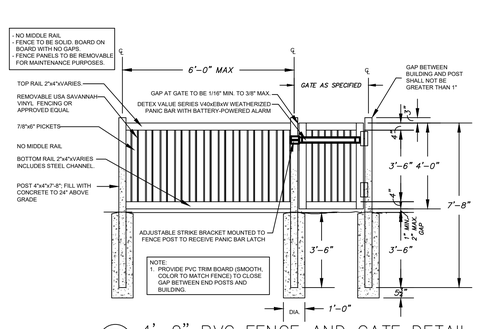
Hydrologic Zones: Zone A: Saturated/Shallow inundation; **Zone B**:temporary saturation/flooding;
Zone C: moist, poorly to moderately well drained

Scientific Name	Zone	Common Name	Form	NWI*	Spacing	Wetland Creation Area	Wetland Enhancement Area	Totals
Asclepias incarnata	B, C	Swamp milkweed	2"plug	OBL	2'OC	10	40	**50**
Carex crinita	A, B	Fringed sedge	2"plug	OBL	2'OC	25	25	**50**
Osmundastrum cinnamomeum	B, C	Cinnamon fern	#1 pot	FACW	2'OC	5	5	**10**
Eutrochium maculatum	B	Spotted Joe Pye weed	2" plug	FACW	1.5'OC	10	40	**50**
Carex lupulina	A, B	Hop sedge	2" plug	FACW+	2'OC	10	40	**50**
Total:						***60***	***150***	210

Seed Mix to be applied at Wetland Creation Area *: New England Wetmix at 1lb/2,500 sq. ft. (Supplier: New England Wetland Plants, Inc.)*



2 TYP. PVC FENCE AND GATE WITH PANIC HARDWARE
SCALE 1/2" = 1'-0"



3 4'-0" PVC FENCE AND GATE DETAIL
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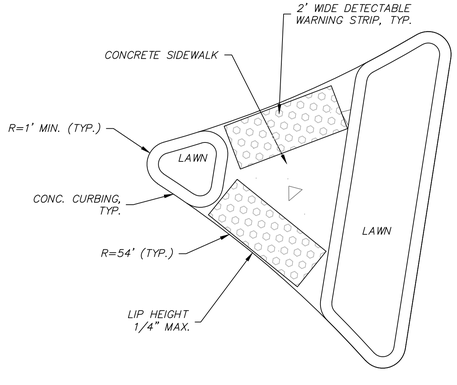

RAISED ISLAND W/ PEDESTRIAN CUT THROUGH
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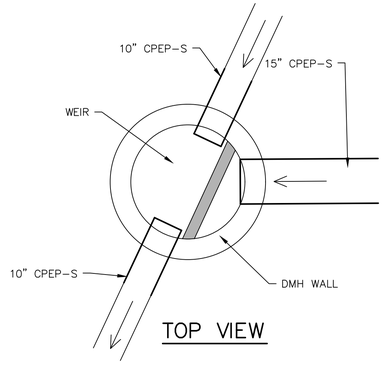

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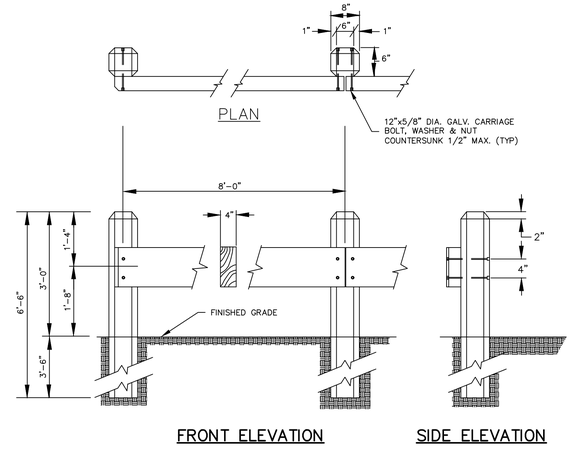

WOOD GUIDERAIL
N.T.S.

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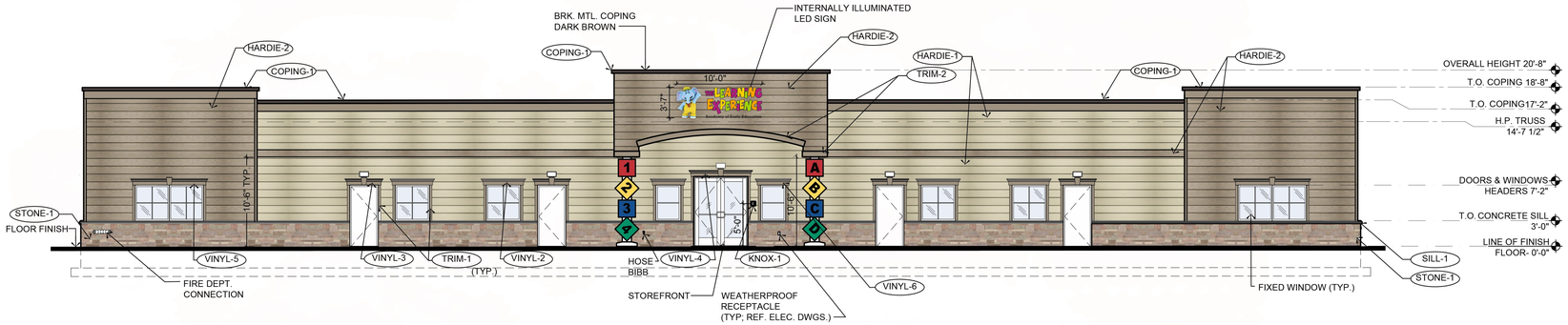
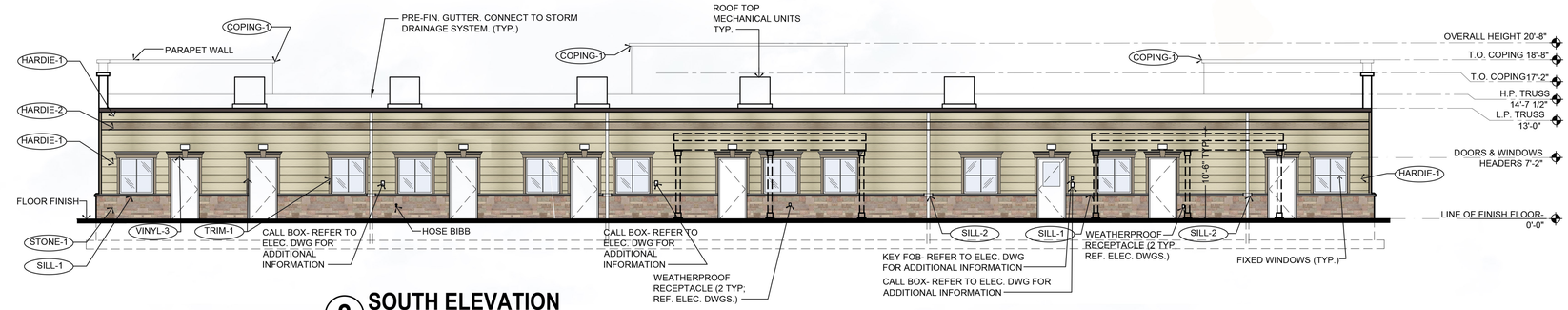
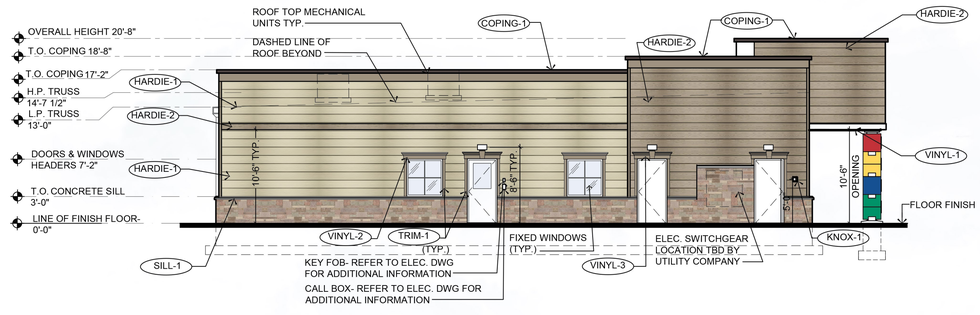


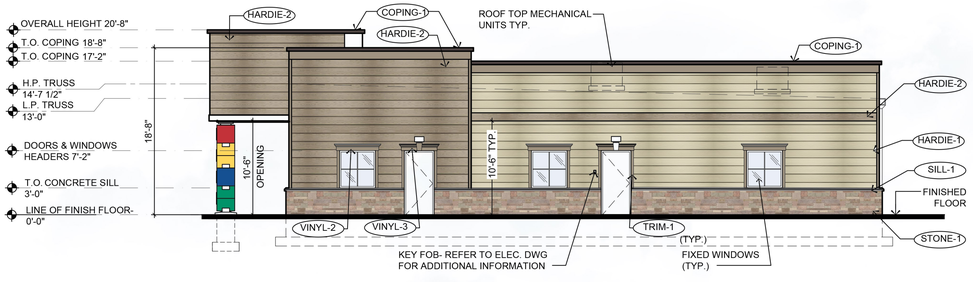
1 NORTH ELEVATION
SCALE: 1/8"=1'-0"



2 SOUTH ELEVATION
SCALE: 1/8"=1'-0"



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



4 WEST ELEVATION
SCALE: 1/8"=1'-0"

1. CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE CONTRACTOR'S BEST SKILL AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE AND HAVE CONTROL OVER CONSTRUCTION MEANS, METHODS TECHNIQUES, SEQUENCE, AND JOB SITE SAFETY.

2. GC MUST PROVIDE & INSTALL ALL PRODUCTS PER PLANS. ONLY SUBSTITUTED PRODUCTS NEED TO BE SUBMITTED TO THE ARCHITECT FOR APPROVAL. UNAPPROVED SUBSTITUTIONS WILL BE REPLACED AT THE EXPENSE OF THE GC.

3. VERBAL REPRESENTATION HAS NO VALUE AND ALL REQUESTS TO CHANGE ANY PRODUCTS OR SPECIFICATIONS PER PLANS, MUST BE SUBMITTED IN WRITING TO THE ARCHITECT & TLE FOR APPROVAL.

EXTERIOR MATERIAL SCHEDULE

LABEL	MANUFACTURER	SIZE / TYPE	FINISH / COLOR
STOREFRONT	KAWNEER	TRIFAB 451T / 350 PER DOOR SCHEDULE	BONE WHITE
DOOR	-	PER DOOR SCHEDULE	FACTORY PRIMED
FIXED WINDOW	PLY GEM	SILVER LINE V1 SERIES PER WINDOW SCHEDULE	WHITE
STONE-1	BUECHEL STONE CORP.	5" FULL DEPTH STONE	CHILTON TAILORED BLEND
SILL-1	MODERN PRECAST	3 3/4"Hx6"W W/ 2" FLAT W/ 1/4" DRIP EDGE	REGULAR (LIGHT GREY)
SILL-2	MODERN PRECAST	CUSTOM SILL 3 3/4"Hx4"W W/ 2" FLAT REF. DTL. 6/A-032	REGULAR (LIGHT GREY)
HARDIE-1	JAMES HARDIE	WIDTH: 8.25"	COLOR: NAVAJO BEIGE
HARDIE-2	JAMES HARDIE	WIDTH: 8.25"	COLOR: KHAKI BROWN
TRIM-1	JAMES HARDIE	5/4 M3 SMOOTH TRIM BOARD WIDTH: 3.5"	COLOR: KHAKI BROWN
TRIM-2	JAMES HARDIE	5/4 M3 SMOOTH TRIM BOARD WIDTH: 11.25"	COLOR: KHAKI BROWN
VINYL-1	ROYAL BUILDING PRODUCTS	COLORSCAPES TRIPLE 4 PERFORATED SOFFIT NOM. THICKNESS 0.042"	WHITE (REF. NOTE 2 BELOW)
VINYL-2	FYPON	WINDOW CROSSHEAD WIDTH 56", HEIGHT 9"	PAINT TO MATCH HARDIE-2 PRODUCT: WCH56X9
VINYL-3	FYPON	DOOR CROSSHEAD WIDTH 48", HEIGHT 9"	PAINT TO MATCH HARDIE-2 PRODUCT: WCH48X9
VINYL-4	FYPON	DOOR CROSSHEAD WIDTH 84", HEIGHT 9"	PAINT TO MATCH HARDIE-2 PRODUCT: WCH84X9
VINYL-5	FYPON	WINDOW CROSSHEAD WIDTH 103", HEIGHT 9"	PAINT TO MATCH HARDIE-2 PRODUCT: WCH103X9
VINYL-6	FYPON	WINDOW CROSSHEAD WIDTH 44", HEIGHT 9"	PAINT TO MATCH HARDIE-2 PRODUCT: WCH44X9
COPING-1	FABRAL (OR EQUAL)	BREAK METAL	DARK BRONZE
KNOX-1	KNOX BOX	3200 SERIES W/ RECESSED MOUNT FLANGE, HINGE DOOR, & TAMPER SWITCH	DARK BRONZE (REF. NOTE 2 BELOW)

FINISH SCHEDULE NOTES:
1. G.C. SHALL VERIFY KNOX BOX MODEL(S) AND LOCATION(S) WITH AUTHORITY HAVING JURISDICTION PRIOR TO ORDERING AND INSTALLATION.
2. G.C. SHALL ENSURE ALL EXTERIOR FINISHES ARE INSTALLED AND FINISHED IN COMPLIANCE WITH MANUFACTURER'S WARRANTY REQUIREMENTS.

Jarmel Kizel
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Architecture
Engineering
Interior Design
Implementation Services

THE LEARNING EXPERIENCE
ACADEMY OF EARLY EDUCATION
501 TALCOTTVILLE ROAD
VERNON, CONNECTICUT

ISSUE

NO.	DATE	DESCRIPTION	INT.

REVISION

NO.	DATE	DESCRIPTION	INT.

PROFESSIONAL CERTIFICATION
MATTHEW B. JARMEL, AIA, MBA
CT. LICENSE NUMBER: ARI-0011415

Project Number:	Scale:
TLECT21-041	1/8"=1'-0"
Drawn By: AM	Approved By: MBJ

Drawing Name:
PROPOSED ELEVATIONS

Drawing Number:
SA-1.2

DRAINAGE REPORT
The Learning Experience
501 Talcottville Road
Enfield, CT

ALTERNATIVE 1

Revised March 17, 2022

Prepared for:

Vernon Development, LLC
56 East Main Street
Avon, Connecticut 06001
(860) 677-5607

Project No. 2021-083

Prepared by:

J.R. Russo & Associates, LLC
Land Surveyors & Professional Engineers
P.O. Box 938
East Windsor, CT 06088
(860) 623-0569

I. INTRODUCTION

A. Project Description

Vernon Development, LLC and The Learning Experience are proposing the development of a 10,000 s.f. daycare center on Dart Hill Road near the intersection of Dart Hill Road and Talcottville Road (Rte. 83) in Vernon. The development will result in an impervious area of approximately 1.04 acres. Runoff from the development will be directed to a subsurface infiltration system and infiltration basin designed to provide treatment, ground water recharge, and peak flow attenuation in accordance with the Connecticut Stormwater Quality Manual.

B. Existing Conditions

The proposed 2.0 acre lot for the development will be split off of the existing 4.6 acre parcel at 501 Talcottville Road. The new lot for the development (the project site) will front Dart Hill Road to the north. Access to the site will be via one driveway off of Dart Hill Road and a second limited access driveway off of Talcottville Road. The site currently consists of undeveloped woodlands, including a wooded wetland on the southern portion of the lot. The wetlands ultimately discharge to Ogden Brook further to the south. Starting at the edge of the road, the site slopes southerly toward the wetland. In addition to runoff from the parcel, stormwater from the building and parking lot at the adjacent Panda Palace to the east, discharges onto the property via a leak-off in the concrete curb at the edge of the parking lot. This runoff flows across the development site into the on-site wetland.

Stormwater overflow from an existing stormwater management basin serving the Walgreens development on the north side of Dart Hill Road is also piped underneath the road to discharge onto the site. The discharge from the stormwater basin consists of a 6" PVC pipe which terminates in an existing manhole in Dart Hill Road. The manhole discharges onto the site via a 15" RCP.

Based on a review of the USDA Soil Survey of Connecticut, the majority of the soil in the area to be developed consists of Hartford sandy loam and the remaining soil on the western portion of the site is Udorthents-Urban land complex. (see Soils Map in Appendix 2). The USDA Soil Survey defines groups of soils into Hydrologic Soil Groups (HSG) according to their runoff-producing characteristics. Soils are assigned to four groups (A, B, C, and D Groups). In group A, are soils having a high infiltration rate when thoroughly wet and having a low runoff potential. They typically are deep, well drained, and sandy or gravelly. In group D, at the other extreme, are soils having a very slow infiltration rate and thus a high runoff potential. They have a hardpan or clay layer at or near the surface, have a permanent high water table, or are shallow over nearly impervious bedrock or other nearly impervious material. The classification of the Hartford sandy loam is HSG A and the Udorthents-Urban land complex is HSG B.

On December 17, 2021, a series of 5 test pits were performed in the area of the proposed development to confirm the existing soil conditions. Test pits were excavated to depths ranging from 62-90 inches. Soils encountered included 6-12 inches of topsoil over brown fine sandy loam subsoils to a depth of 18-30 inches, overlying red-brown sand and gravel. Soil mottling

indicative of the seasonal high water table was encountered in test pits TP1, TP2, and TP3. The depths of the mottling indicate a seasonal high water table approximately at the elevation of 212.0. Test pit logs are provided on the Site Plans.

Soil samples were collected from test pits 1 through 4 at depths ranging from 30-42 inches. These samples were submitted to New England Materials Testing Lab, LLC for permeability testing by ASTM D2434. Calculated permeabilities ranged from 1.10 in/hr for the sample collected at the bottom of the slope in TP1 to 33.95 in/hr for the sample collected mid-slope in TP4. Permeability test results are also provided in Appendix 3.

II. STORMWATER RUNOFF ANALYSIS

A. Methodology

Peak runoff flow rates were determined for pre- and post-development conditions using Applied Microcomputer System's HydroCAD™ Stormwater Modeling System. This computer software employs the SCS Technical Release 55 and 20 (TR-55 & TR-20) methodology. The potential stormwater impacts downstream were evaluated for the 2-yr, 10-yr, 25-yr, and 100-yr; 24-hour storm events. The rainfall for these storm events was taken from NOAA Atlas 14 provided in Appendix 1. Based on the present drainage patterns, all runoff from the proposed development area flows south into the on-site wetlands. As a result, the edge of the wetlands was selected as the design point. The runoff outlet from across the street will be diverted in order to bypass the on-site drainage system and discharge directly at the edge of the wetland. Thus, it acts independent from the site and was not included in these calculations.

B. Pre-Development Hydrology

The pre-development site was modeled as two subcatchments. Subcatchment PRE includes the approximately 2.20 acres of on-site development area that drains to the design point. Subcatchment PP includes the off-site runoff from the adjacent Panda Palace parcel. The pre-development drainage area map is provided in Appendix 4. The pre-development runoff characteristics of the contributing area is provided on the HydroCAD data sheets in Appendix 5. The pre-development discharge rates from the site during the design storms are summarized in Table 1.

C. Post-Development Hydrology

The proposed project will result in approximately 1.04 acres of new impervious area. The development will include a series of catch basins, trench drains, and piping to collect runoff from the development area and divert it to either a new infiltration basin in the southeast corner of the site or subsurface infiltration system under the parking lot. This system will include a riprap swale and area drain installed downgradient of the leak-off from the Panda Palace parking lot. This runoff will be collected and diverted to the subsurface infiltration system. In addition, the roof runoff will be collected and diverted towards the infiltration basin. The subsurface

infiltration system and infiltration basin have been designed in accordance with the CT Storm Water Quality Manual to provide treatment, groundwater recharge, and peak flow attenuation.

As discussed above, several test pits were completed at the site to verify soil conditions. Test pits TP1, TP2 and TP3 were all located within the vicinity of the proposed infiltration basin. Samples collected from these test pits at depths consistent with the proposed bottom of the basin were tested for permeability. The resulting permeabilities were 1.10 in/hr (TP1), 1.97 in/hr (TP2) and 2.34 in/hr (TP3). As a conservative measure, the slowest permeability rate of 1.10 in/hr was used as the basis for the design infiltration rate. This rate was further reduced by 50% to account for potential clogging resulting in a final design infiltration rate for the infiltration basin of 0.55 inches/hour. The subsurface infiltration system will be constructed further up the slope to the north in the vicinity of test pits TP4 and TP5. The soils in these test pits at the elevation of the proposed infiltration system included loose, sand and gravel. The resulting permeability for the soil sample collected from TP4 was 33.95 in/hr. As a conservative measure and to account for potential clogging, the design infiltration rate used for the subsurface infiltration system was selected to be 15.0 in/hr.

The infiltration basin will be equipped with a forebay separated from the main part of the basin by a stone filter berm. The bottom of the basin will be set at elevation 214 which allows 2 feet of separation to the seasonal high water table that was encountered in the test pits. The basin will be equipped with a multi-stage outlet structure constructed from a standard Type CL catch basin. The structures primary outlet will consist of a 10" orifice set at an elevation of 216.8. The secondary outlet will consist of the frame and grate to be set at elevation 218.5. The structure will discharge via a 10" outlet pipe at the edge of the wetland. The basin will also be equipped with an emergency 10-foot wide earthen spillway at elevation 218.5. The subsurface infiltration system under the parking lot will consist of 70 ADS SC740 chambers in stone. The bottom of the chambers will be set at an elevation of 215.0. The subsurface infiltration system will be connected to a proposed manhole for overflow from larger storm events exceeding the capacity of the storage and infiltration capacity of the chambers. In the proposed manhole, a weir set at 217.6 will overflow to a pipe discharging directly to the edge of the wetlands. The proposed storage capacities of the infiltration basin below the primary outlet was sized to exceed the water quality volume. Likewise, the surface basin forebay was sized to contain a minimum of 25% of the WQV per the requirements for infiltration basins. WQV calculations are provided in Appendix 6.

The same design point for the pre-development analysis was used for the post development analysis. The post development site was divided into 9 subcatchments. Subcatchments S1 and S2 include the areas that will be collected by the catch basins in the parking lot and discharged to the subsurface infiltration system. Subcatchments S3 and S4 include the areas that will be collected by the catch basins in the parking lot and discharged to the infiltration basin. Subcatchment S8 includes the roof runoff that will be discharged into a catch basin towards the infiltration basin. Subcatchment S5 includes runoff from the playground area that will be collected in a trench drain and piped directly to the infiltration basin. Subcatchment S6 includes the area that will directly sheet flow into the infiltration basin. Subcatchment S7 includes the area that will continue to drain overland directly to the design point (i.e. wetlands). Subcatchment PP includes the area of the adjacent Panda Palace that discharges to the development area.

The post development drainage area map is provided in Appendix 4. The post development runoff characteristics of the subcatchments are provided on the HydroCAD data sheets in Appendix 5. As shown in the Table 1, the post-development peak rates of runoff from the site to the design point will be maintained or reduced in comparison to the pre-development rates.

TABLE 1 – COMPARISON OF PRE- & POST-DEVELOPMENT DISCHARGE RATES (CFS) TO DESIGN POINT

	2-year	10-year	25-year	100-year
Pre-Development	2.1	3.4	4.2	5.4
Post Development	0.3	1.7	2.3	5.2

D. Pipe Sizing

The piping proposed at the site consists of smooth bore corrugated high density polyethylene pipe with smooth interior walls (CPEP-S). The roughness coefficient used for this pipe type is 0.012. The analysis provided in Appendix 5 indicates headwater elevation in the structure at each pipe inlet for the design storms and compares it to the flood elevation, which corresponds to the top of frame of the structure. The calculations indicate that all proposed pipes will have sufficient capacity to convey the 10-year storm event without surcharging out of the top of the structures.

E. Outlet Protection

Outfall protection for the pipe discharge from the Walgreens Stormwater Management Basin and subsurface infiltration system overflow at the edge of the wetland will consist of a Type A riprap apron. Outfall protection for the pipe discharge from the infiltration basin at the edge of the wetland will consist of a Type A riprap apron. Similarly, riprap channels will be installed at the inlets to the infiltration basin to convey runoff down the slope into the forebay. Outlet protection for the infiltration's spillway will consist of a 12" thick modified riprap slope extended 5 feet beyond the toe of the slope.

F. Summary of Results

The proposed design and analysis indicates that the proposed development will not result in negative impacts downstream. In addition, the proposed stormwater management system will intercept and divert the untreated runoff from the Panda Palace leak-off to the subsurface infiltration system where it will be treated prior to discharge, whereas previously it was discharged to the wetland without treatment.

Appendix 1:

RAINFALL DATA

NOAA Atlas 14, Volume 10, Version 3
Location name: Vernon Rockville, Connecticut, USA*
Latitude: 41.8502°, Longitude: -72.4855°
Elevation: 224.86 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.332 (0.254-0.434)	0.403 (0.308-0.528)	0.519 (0.395-0.684)	0.616 (0.466-0.814)	0.749 (0.551-1.03)	0.849 (0.614-1.20)	0.953 (0.672-1.39)	1.07 (0.718-1.60)	1.24 (0.803-1.92)	1.38 (0.875-2.18)
10-min	0.470 (0.359-0.615)	0.571 (0.436-0.748)	0.736 (0.560-0.967)	0.872 (0.660-1.15)	1.06 (0.780-1.46)	1.20 (0.868-1.69)	1.35 (0.951-1.97)	1.52 (1.02-2.27)	1.76 (1.14-2.72)	1.96 (1.24-3.08)
15-min	0.553 (0.423-0.724)	0.672 (0.513-0.880)	0.866 (0.658-1.14)	1.03 (0.778-1.36)	1.25 (0.918-1.72)	1.41 (1.02-1.99)	1.59 (1.12-2.32)	1.79 (1.20-2.67)	2.07 (1.34-3.20)	2.30 (1.46-3.63)
30-min	0.748 (0.571-0.979)	0.909 (0.694-1.19)	1.17 (0.892-1.54)	1.39 (1.05-1.84)	1.69 (1.25-2.34)	1.92 (1.39-2.71)	2.16 (1.52-3.15)	2.43 (1.63-3.62)	2.81 (1.82-4.34)	3.13 (1.98-4.93)
60-min	0.943 (0.720-1.23)	1.15 (0.875-1.50)	1.48 (1.13-1.95)	1.76 (1.33-2.32)	2.14 (1.57-2.95)	2.42 (1.75-3.42)	2.73 (1.92-3.99)	3.07 (2.05-4.58)	3.56 (2.30-5.49)	3.96 (2.51-6.23)
2-hr	1.21 (0.931-1.58)	1.47 (1.12-1.91)	1.88 (1.44-2.46)	2.23 (1.69-2.93)	2.70 (2.00-3.72)	3.05 (2.22-4.30)	3.43 (2.44-5.03)	3.89 (2.61-5.77)	4.57 (2.96-7.02)	5.15 (3.27-8.06)
3-hr	1.40 (1.08-1.82)	1.69 (1.30-2.19)	2.16 (1.66-2.82)	2.56 (1.95-3.36)	3.10 (2.30-4.26)	3.50 (2.56-4.93)	3.94 (2.82-5.78)	4.47 (3.01-6.62)	5.30 (3.44-8.10)	6.01 (3.82-9.36)
6-hr	1.76 (1.36-2.28)	2.13 (1.65-2.76)	2.74 (2.11-3.56)	3.25 (2.49-4.24)	3.95 (2.95-5.41)	4.46 (3.28-6.26)	5.02 (3.62-7.35)	5.72 (3.86-8.42)	6.82 (4.44-10.4)	7.78 (4.96-12.0)
12-hr	2.17 (1.69-2.80)	2.66 (2.06-3.42)	3.45 (2.67-4.46)	4.10 (3.16-5.33)	5.01 (3.76-6.83)	5.67 (4.19-7.92)	6.40 (4.63-9.32)	7.31 (4.95-10.7)	8.74 (5.71-13.2)	9.98 (6.38-15.3)
24-hr	2.56 (1.99-3.27)	3.16 (2.47-4.06)	4.16 (3.23-5.35)	4.98 (3.85-6.45)	6.12 (4.62-8.32)	6.95 (5.16-9.68)	7.87 (5.74-11.4)	9.04 (6.14-13.1)	10.9 (7.13-16.3)	12.5 (8.03-19.1)
2-day	2.88 (2.26-3.67)	3.61 (2.83-4.61)	4.81 (3.75-6.16)	5.80 (4.50-7.47)	7.17 (5.44-9.72)	8.16 (6.10-11.3)	9.28 (6.82-13.5)	10.7 (7.30-15.5)	13.1 (8.59-19.5)	15.2 (9.77-23.0)
3-day	3.13 (2.46-3.98)	3.94 (3.09-5.01)	5.25 (4.10-6.70)	6.33 (4.93-8.12)	7.83 (5.96-10.6)	8.91 (6.69-12.4)	10.1 (7.48-14.7)	11.7 (8.01-16.9)	14.3 (9.44-21.3)	16.7 (10.8-25.2)
4-day	3.37 (2.65-4.27)	4.22 (3.32-5.36)	5.61 (4.40-7.15)	6.77 (5.28-8.67)	8.36 (6.37-11.3)	9.52 (7.15-13.2)	10.8 (7.99-15.7)	12.5 (8.55-18.0)	15.3 (10.1-22.7)	17.8 (11.5-26.8)
7-day	4.00 (3.16-5.06)	4.96 (3.92-6.28)	6.53 (5.14-8.29)	7.83 (6.13-9.99)	9.62 (7.35-12.9)	10.9 (8.22-15.0)	12.4 (9.15-17.8)	14.3 (9.78-20.4)	17.3 (11.4-25.5)	20.0 (12.9-30.0)
10-day	4.64 (3.68-5.85)	5.66 (4.48-7.14)	7.32 (5.78-9.27)	8.70 (6.83-11.1)	10.6 (8.11-14.2)	12.0 (9.02-16.4)	13.5 (9.98-19.3)	15.5 (10.6-22.1)	18.6 (12.3-27.3)	21.3 (13.8-31.8)
20-day	6.67 (5.31-8.37)	7.75 (6.17-9.74)	9.53 (7.55-12.0)	11.0 (8.67-13.9)	13.0 (9.97-17.2)	14.5 (10.9-19.5)	16.1 (11.8-22.5)	18.0 (12.5-25.5)	20.8 (13.9-30.4)	23.2 (15.1-34.4)
30-day	8.40 (6.70-10.5)	9.51 (7.58-11.9)	11.3 (8.99-14.2)	12.8 (10.1-16.2)	14.9 (11.4-19.5)	16.5 (12.3-21.9)	18.1 (13.2-24.9)	19.9 (13.8-27.9)	22.3 (14.9-32.4)	24.3 (15.9-36.0)
45-day	10.6 (8.45-13.2)	11.7 (9.35-14.6)	13.6 (10.8-17.0)	15.1 (12.0-19.0)	17.2 (13.2-22.4)	18.9 (14.1-24.9)	20.5 (14.8-27.8)	22.1 (15.4-31.0)	24.3 (16.3-35.0)	25.8 (16.9-38.1)
60-day	12.4 (9.92-15.4)	13.5 (10.8-16.9)	15.4 (12.3-19.3)	17.0 (13.5-21.4)	19.2 (14.7-24.8)	20.9 (15.7-27.5)	22.6 (16.3-30.4)	24.1 (16.8-33.6)	26.0 (17.4-37.4)	27.3 (17.8-40.1)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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PF graphical

Appendix 2:

NRCS SOILS INFORMATION

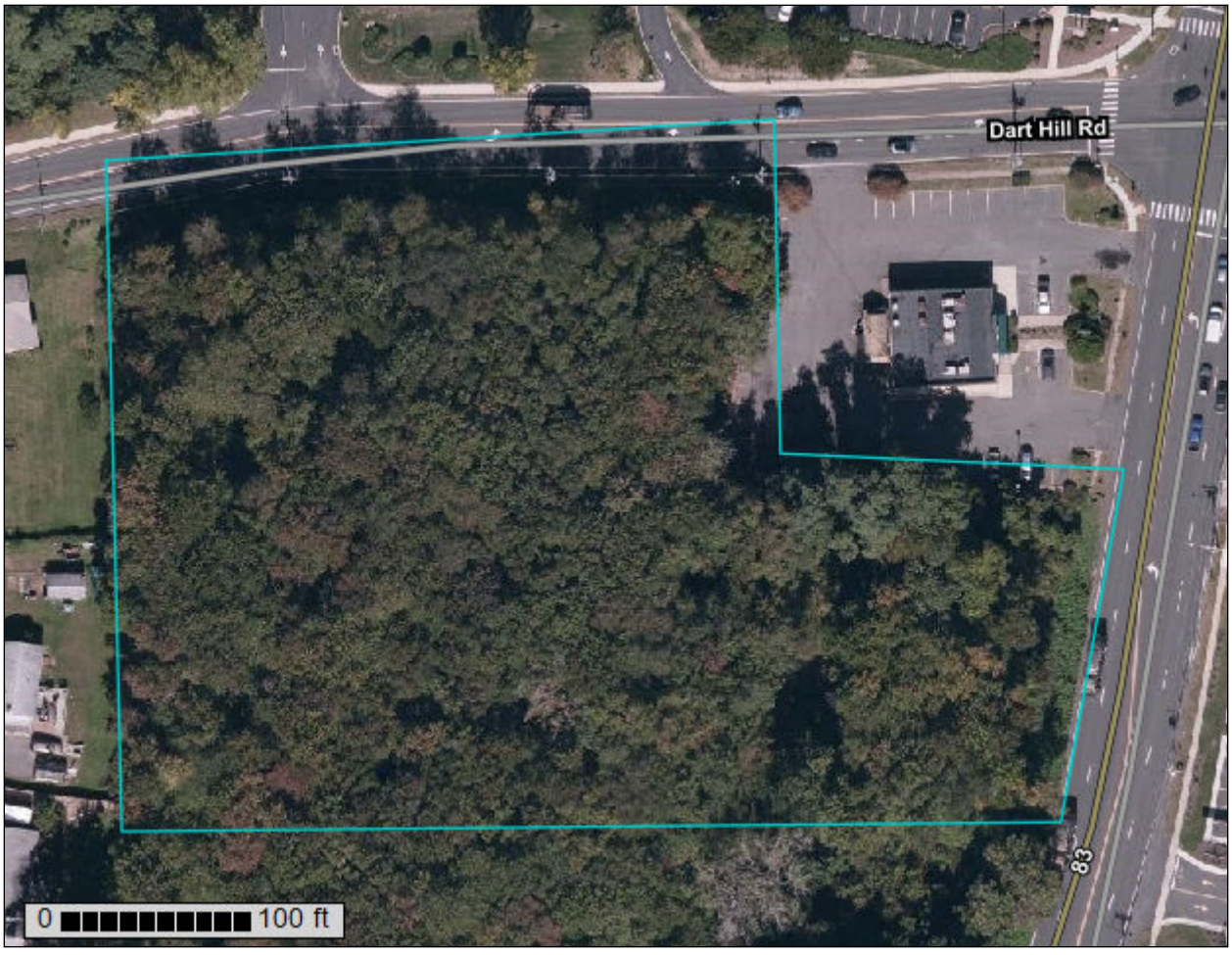
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for State of Connecticut



November 19, 2021

Custom Soil Resource Report
Soil Map



Map Scale: 1:969 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 10 20 40 60

Feet
0 45 90 180 270

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
33B	Hartford sandy loam, 3 to 8 percent slopes	3.3	91.3%
306	Udorthents-Urban land complex	0.3	8.7%
Totals for Area of Interest		**3.7**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

State of Connecticut

33B—Hartford sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9lmw
Elevation: 0 to 1,200 feet
Mean annual precipitation: 43 to 54 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 140 to 185 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Hartford and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hartford

Setting

Landform: Terraces, outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy glaciofluvial deposits derived from sandstone and/or basalt

Typical profile

Ap - 0 to 8 inches: sandy loam
Bw1 - 8 to 20 inches: sandy loam
Bw2 - 20 to 26 inches: loamy sand
2C - 26 to 65 inches: stratified very gravelly coarse sand to loamy fine sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: A
Ecological site: F145XY008MA - Dry Outwash
Hydric soil rating: No

Minor Components

Penwood

Percent of map unit: 5 percent
Landform: Terraces, outwash plains
Down-slope shape: Convex

Across-slope shape: Linear
Hydric soil rating: No

Ellington

Percent of map unit: 5 percent
Landform: Terraces, outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Manchester

Percent of map unit: 5 percent
Landform: Terraces, outwash plains, kames, eskers
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Branford

Percent of map unit: 5 percent
Landform: Terraces, outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

306—Udorthents-Urban land complex

Map Unit Setting

National map unit symbol: 9lmg
Elevation: 0 to 2,000 feet
Mean annual precipitation: 43 to 56 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 120 to 185 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents and similar soils: 50 percent
Urban land: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents

Setting

Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Drift

Typical profile

A - 0 to 5 inches: loam
C1 - 5 to 21 inches: gravelly loam
C2 - 21 to 80 inches: very gravelly sandy loam

Properties and qualities

Slope: 0 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 1.98 in/hr)
Depth to water table: About 54 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Urban Land

Typical profile

H - 0 to 6 inches: material

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: Unranked

Minor Components

Unnamed, undisturbed soils

Percent of map unit: 8 percent
Hydric soil rating: No

Udorthents, wet substratum

Percent of map unit: 5 percent
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Rock outcrop

Percent of map unit: 2 percent
Hydric soil rating: No

Appendix 3:

PERMEABILITY TEST RESULTS

NEW ENGLAND MATERIALS TESTING LAB, LLC.
NEW ENGLAND REGIONAL OFFICE
72 Bissell Street Manchester, CT 06040 • Tel: 860-783-5830 • Fax: 860-783-5832

Client: JR Russo Surveyors Engineers
P. O Box 938
East Windsor, CT. 06088

Report #: 001

Lab ID: 098-21

Project: 501Talcottville Road Vernon, CT.

Client ID: TP-1

Technician: Z. A

Date: 12/27/2021

LAB PERMEABILITY TEST

Sample description: Reddish brown silty clayey sand.

Location: Onsite (501Talcottville Red Vernon, CT).

Sample depth: 30" to 36"

Method: Permeability by ASTM D2434 (Constant Head Method)

k = QL/ath

Where k = coefficient of permeability,

Q = quantity of water discharged,	Q =	800 cm^3
L = length of sample in centimeters	L =	15.24 cm
A = cross sectional area of specimen,	A =	43.10 cm^2
t = total time for discharge, in seconds	t =	5940 sec
h = difference in head manometers,	h =	61.5 cm

k = 0.00077435 cm/sec.

k = 1.0975 inch/hour

Reported To: JR Russo Surveyors Engineers

Submitted By: New England Materials Testing Lab, LLC.

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NEMT accepts no liability for work executed by others.

NEW ENGLAND MATERIALS TESTING LAB, LLC.
NEW ENGLAND REGIONAL OFFICE
72 Bissell Street Manchester, CT 06040 • Tel: 860-783-5830 • Fax: 860-783-5832

Client: JR Russo Surveyors Engineers
P. O Box 938
East Windsor, CT. 06088

Report #: 002

Lab ID: 099-21

Project: 501Talcottville Road Vernon, CT.

Client ID: TP-2

Technician: Z. A

Date: 12/27/2021

LAB PERMEABILITY TEST

Sample description: Reddish brown sand bank run gravel and fines.

Location: Onsite (501Talcottville Red Vernon, CT).

Sample depth: 30" to 36"

Method: Permeability by ASTM D2434 (Constant Head Method)

k = QL/ath

Where k = coefficient of permeability,

Q = quantity of water discharged,	Q =	1000 cm^3
L = length of sample in centimeters	L =	15.24 cm
A = cross sectional area of specimen,	A =	43.10 cm^2
t = total time for discharge, in seconds	t =	4140 sec
h = difference in head manometers,	h =	61.5 cm

k = 0.001388776 cm/sec.

k = 1.968 inch/hour

Reported To: JR Russo Surveyors Engineers

Submitted By: New England Materials Testing Lab, LLC.

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NEMT accepts no liability for work executed by others.

NEW ENGLAND MATERIALS TESTING LAB, LLC.
NEW ENGLAND REGIONAL OFFICE
72 Bissell Street Manchester, CT 06040 • Tel: 860-783-5830 • Fax: 860-783-5832

Client: JR Russo Surveyors Engineers
P. O Box 938
East Windsor, CT. 06088

Report #: 003

Lab ID: 100-21

Project: 501Talcottville Road Vernon, CT.

Client ID: TP-3

Technician: Z. A

Date: 12/27/2021

LAB PERMEABILITY TEST

Sample description: Dark brown silty clayey sand and gravel.

Location: Onsite (501Talcottville Red Vernon, CT).

Sample depth: 36" to 42"

Method: Permeability by ASTM D2434 (Constant Head Method)

k = QL/ath

Where k = coefficient of permeability,

Q = quantity of water discharged,	Q =	1000 cm^3
L = length of sample in centimeters	L =	15.24 cm
A = cross sectional area of specimen,	A =	43.10 cm^2
t = total time for discharge, in seconds	t =	3480 sec
h = difference in head manometers,	h =	61.5 cm

k = 0.001652165 cm/sec.

k = 2.341 inch/hour

Reported To: JR Russo Surveyors Engineers

Submitted By: New England Materials Testing Lab, LLC.

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NEMT accepts no liability for work executed by others.

NEW ENGLAND MATERIALS TESTING LAB, LLC.
NEW ENGLAND REGIONAL OFFICE
72 Bissell Street Manchester, CT 06040 • Tel: 860-783-5830 • Fax: 860-783-5832

Client: JR Russo Surveyors Engineers
P. O Box 938
East Windsor, CT. 06088

Report #: 001

Lab ID: 101-21

Project: 501Talcottville Road Vernon, CT.

Client ID: TP-4

Technician: Z. A

Date: 12/27/2021

LAB PERMEABILITY TEST

Sample description: Reddish brown sand and little gravel.

Location: Onsite (501Talcottville Red Vernon, CT).

Sample depth: 30" to 36"

Method: Permeability by ASTM D2434 (Constant Head Method)

k = QL/ath

Where k = coefficient of permeability,

Q = quantity of water discharged,	Q =	1000 cm^3
L = length of sample in centimeters	L =	15.24 cm
A = cross sectional area of specimen,	A =	43.10 cm^2
t = total time for discharge, in seconds	t =	240 sec
h = difference in head manometers,	h =	61.5 cm

k = 0.023956388 cm/sec.

k = 33.953 inch/hour

Reported To: JR Russo Surveyors Engineers

Submitted By: New England Materials Testing Lab, LLC.

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NEMT accepts no liability for work executed by others.

Appendix 4:

DRAINAGE AREA MAPS

PRE-DEVELOPMENT DRAINAGE AREA MAP

DART HILL ROAD

TALCOTTVILLE ROAD (CT ROUTE 83)

AREA PRE (87,188 S.F.)

AREA PP (0.67± Ac)

PROPOSED LOT
I.D. 09-0007-0001E
AREA=87,120 S.F. (2.00± ACRES)

REMAINING LAND OF
N/F
501 TALCOTTVILLE ROAD LLC
501 TALCOTTVILLE ROAD
VOL 2026 PG 51
LOT 09-0007-0001D
AREA=113,818 S.F. (2.61± ACRES)

N/F
EUGENE P. & JUDITH S. VEILLETTE
786 DART HILL ROAD
VOL 1233 PG 191

N/F
THOMAS A. & LINDA M. SHIRSHAC
64 WORCESTER ROAD
VOL 266 PG 102

N/F
KAO LLC
509 TALCOTTVILLE ROAD
VOL 1802 PG 261

NRCS SOIL TYPE BOUNDARY, TYP.

NRCS SOIL TYPE HARTFORD SANDY LOAM (33B)

NRCS SOIL TYPE UDORTHENTS-URBAN LAND COMPLEX (306)

EASEMENT IN FAVOR OF PROPOSED LOT
AREA=7,789 S.F. (0.179 AC)

352.41'
N85°49'00"E

274.45'
S85°49'00"W

148.91'
N2°32'37"W

S2°39'01"W
150.88'

S88°27'10"E 200.82'
145.82'

S8°39'41"W
41.63'

S1°32'50"W
53.93'

70.00'
S88°27'10"E

215.58'
N57°48'55"W

93.33'
S57°00'38"W

45.00' ESMT

42.58' ESMT

100' WETLAND REGULATED AREA

50' FRONT YARD

50' REAR YARD

25' SIDE YARD

20' SIDE YARD

35' BUFFER YARD

DELTA=7°22'55"
R=2506.67'
L=322.95'

SMH
TF=226.15
FL=214.39 8"PVC W
FL=214.95 6"PVC S
FL=219.59 6"PVC N

SMH
TF=222.95
FL=212.35

DMH
TF=223.5
FL=214.39 6" NW
FL=214.95 15" S

6" PVC

15" RCP

8" PVC

6" PVC LATERAL

WOOD POSTS

SNET 1710
W/ LIGHT

SNET 1711

POSSIBLE HEADWALL BURIED
FL=215.0± (RECORD)

REBAR FOUND

DRILL HOLE FOUND

C.H.D. FOUND

C.H.D. FOUND

I.P. BENT FOUND

C.H.D. D.H. FOUND

8"CMP
FL=220.98

TP1

TP2

TP3

TP4

TP5

POST-DEVELOPMENT DRAINAGE AREA MAP

DART HILL ROAD

AREA CB1
(8,698 S.F.)

AREA CB2
(12,872 S.F.)

AREA CB3
(13,853 S.F.)

AREA CB4
(10,122 S.F.)

AREA ROOF
(10,000 S.F.)

AREA PLAYGROUND
(4,941 S.F.)

AREA BAS1
(4,314 S.F.)

AREA DIRECT
(30,058 S.F.)

AREA PP
(0.67± Ac)

PROPOSED LOT
I.D. 09-0007-0001E
AREA=87,120 S.F. (2.00± ACRES)

REMAINING LAND OF
N/F
501 TALCOTTVILLE ROAD LLC
501 TALCOTTVILLE ROAD
VOL 2026 PG 51
LOT 09-0007-0001D
AREA=113,818 S.F. (2.61± ACRES)

N/F
KAO LLC
509 TALCOTTVILLE ROAD
VOL 1802 PG 261

N/F
EUGENE P. &
JUDITH S. VEILLETTE
786 DART HILL ROAD
VOL 1233 PG 191

N/F
THOMAS A. & LINDA M.
SHIRSHAC
64 WORCESTER ROAD
VOL 266 PG 102

NRCS SOIL TYPE BOUNDARY, TYP.

NRCS SOIL TYPE
HARTFORD SANDY LOAM
(33B)

NRCS SOIL TYPE
UDORTHENTS-URBAN
LAND COMPLEX
(306)

50' FRONT YARD
50' REAR YARD
25' SIDE YARD
35' BUFFER YARD

100' WETLAND
REGULATED AREA

TALCOTTVILLE ROAD
(CT ROUTE 83)

SMH
TF=222.95
FL=212.35

DMH
TF=223.5
FL=214.39 6" NW
FL=214.95 15" S

SMH
TF=226.15
FL=214.39 8"PVC W
FL=214.95 6"PVC S
FL=219.59 6"PVC N

8" PVC

6" PVC LATERAL

8"CMP
FL=220.98

DRILL HOLE FOUND

C.H.D. FOUND

I.P. BENT FOUND

C.H.D. D.H. FOUND

REBAR FOUND

TP1

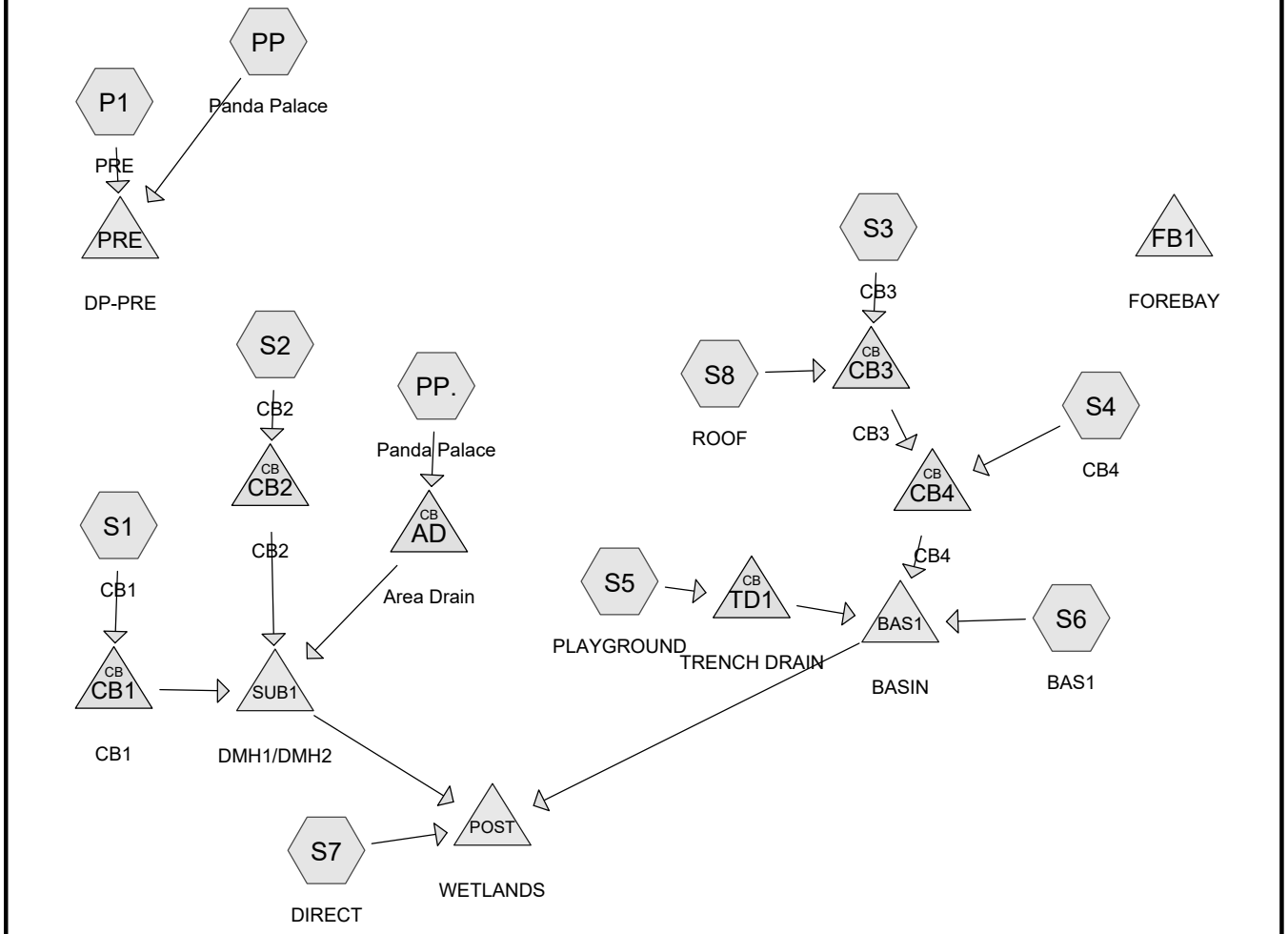
TP3

TP4

TP5

Appendix 5:

HYDROCAD ANALYSES



Subcat Reach Pond Link

Routing Diagram for 2021-083 Vernon TLE-A
Prepared by J.R. Russo & Associates LLC, Printed 3/23/2022
HydroCAD® 10.00-26 s/n 10006 © 2020 HydroCAD Software Solutions LLC

Summary for Pond AD: Area Drain

Inflow Area = 0.668 ac,100.00% Impervious, Inflow Depth > 4.74" for 10-year event
Inflow = 3.37 cfs @ 12.07 hrs, Volume= 0.264 af
Outflow = 3.37 cfs @ 12.08 hrs, Volume= 0.264 af, Atten= 0%, Lag= 0.6 min
Primary = 3.37 cfs @ 12.08 hrs, Volume= 0.264 af

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 218.12' @ 12.08 hrs
Flood Elev= 220.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	217.00'	**15.0" Round Culvert** L= 54.0' Ke= 0.500 Inlet / Outlet Invert= 217.00' / 216.73' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=3.37 cfs @ 12.08 hrs HW=218.12' TW=215.54' (Dynamic Tailwater)
↑**1=Culvert** (Barrel Controls 3.37 cfs @ 3.86 fps)

Summary for Pond BAS1: BASIN

Inflow Area = 0.992 ac, 67.83% Impervious, Inflow Depth > 2.95" for 10-year event
Inflow = 3.26 cfs @ 12.09 hrs, Volume= 0.244 af
Outflow = 1.73 cfs @ 12.21 hrs, Volume= 0.244 af, Atten= 47%, Lag= 7.5 min
Discarded = 0.04 cfs @ 12.21 hrs, Volume= 0.100 af
Primary = 1.69 cfs @ 12.21 hrs, Volume= 0.145 af

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 217.63' @ 12.21 hrs Surf.Area= 1,951 sf Storage= 3,876 cf
Flood Elev= 219.00' Surf.Area= 2,791 sf Storage= 7,112 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 429.5 min (1,217.8 - 788.3)

Volume	Invert	Avail.Storage	Storage Description
#1	214.00'	7,112 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
214.00	338	0	0
216.00	1,076	1,414	1,414
218.00	2,151	3,227	4,641
219.00	2,791	2,471	7,112

Device	Routing	Invert	Outlet Devices
#1	Discarded	214.00'	**0.550 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 212.00'
#2	Primary	218.50'	**10.0' long x 7.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.40 2.52 2.70 2.68 2.68 2.67 2.66 2.65 2.65

2.65 2.66 2.65 2.66 2.68 2.70 2.73 2.78

#3	Primary	212.30'	**10.0" Round Culvert** L= 28.0' Ke= 0.500 Inlet / Outlet Invert= 212.30' / 212.00' S= 0.0107 '/' Cc= 0.900 n= 0.012, Flow Area= 0.55 sf
#4	Device 3	216.80'	**10.0" Vert. Orifice/Grate** C= 0.600
#5	Device 3	218.50'	**36.0" W x 19.4" H Vert. Orifice/Grate** C= 0.600

Discarded OutFlow Max=0.04 cfs @ 12.21 hrs HW=217.63' (Free Discharge)
└**1=Exfiltration** (Controls 0.04 cfs)

Primary OutFlow Max=1.69 cfs @ 12.21 hrs HW=217.63' TW=0.00' (Dynamic Tailwater)
├**2=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)
└**3=Culvert** (Passes 1.69 cfs of 5.82 cfs potential flow)
  ├**4=Orifice/Grate** (Orifice Controls 1.69 cfs @ 3.10 fps)
  └**5=Orifice/Grate** (Controls 0.00 cfs)

Summary for Pond CB1: CB1

Inflow Area = 0.200 ac, 81.06% Impervious, Inflow Depth = 3.55" for 10-year event
Inflow = 0.85 cfs @ 12.07 hrs, Volume= 0.059 af
Outflow = 0.85 cfs @ 12.08 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.6 min
Primary = 0.85 cfs @ 12.08 hrs, Volume= 0.059 af

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 216.58' @ 12.08 hrs
Flood Elev= 219.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.10'	**15.0" Round Culvert** L= 107.0' Ke= 0.500 Inlet / Outlet Invert= 216.10' / 215.56' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.84 cfs @ 12.08 hrs HW=216.58' TW=215.55' (Dynamic Tailwater)
└**1=Culvert** (Barrel Controls 0.84 cfs @ 2.87 fps)

Summary for Pond CB2: CB2

Inflow Area = 0.296 ac, 70.91% Impervious, Inflow Depth = 2.97" for 10-year event
Inflow = 1.06 cfs @ 12.07 hrs, Volume= 0.073 af
Outflow = 1.06 cfs @ 12.08 hrs, Volume= 0.073 af, Atten= 0%, Lag= 0.6 min
Primary = 1.06 cfs @ 12.08 hrs, Volume= 0.073 af

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 216.25' @ 12.38 hrs
Flood Elev= 220.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.00'	**15.0" Round Culvert** L= 3.0' Ke= 0.500 Inlet / Outlet Invert= 215.00' / 215.00' S= 0.0000 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.79 cfs @ 12.08 hrs HW=215.64' TW=215.56' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 0.79 cfs @ 1.81 fps)

Summary for Pond CB3: CB3

Inflow Area = 0.548 ac, 72.46% Impervious, Inflow Depth > 3.12" for 10-year event
Inflow = 1.89 cfs @ 12.07 hrs, Volume= 0.142 af
Outflow = 1.89 cfs @ 12.08 hrs, Volume= 0.142 af, Atten= 0%, Lag= 0.6 min
Primary = 1.89 cfs @ 12.08 hrs, Volume= 0.142 af

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 217.75' @ 12.15 hrs
Flood Elev= 220.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.50'	**15.0" Round Culvert** L= 48.0' Ke= 0.500 Inlet / Outlet Invert= 216.50' / 216.26' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.58 cfs @ 12.08 hrs HW=217.63' TW=217.51' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 1.58 cfs @ 1.79 fps)

Summary for Pond CB4: CB4

Inflow Area = 0.780 ac, 71.70% Impervious, Inflow Depth > 3.04" for 10-year event
Inflow = 2.70 cfs @ 12.08 hrs, Volume= 0.198 af
Outflow = 2.70 cfs @ 12.09 hrs, Volume= 0.198 af, Atten= 0%, Lag= 0.6 min
Primary = 2.70 cfs @ 12.09 hrs, Volume= 0.198 af

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 217.69' @ 12.18 hrs
Flood Elev= 220.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.26'	**15.0" Round Culvert** L= 14.0' Ke= 0.500 Inlet / Outlet Invert= 216.26' / 216.00' S= 0.0186 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.39 cfs @ 12.09 hrs HW=217.55' TW=217.39' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 2.39 cfs @ 1.94 fps)

Summary for Pond FB1: FOREBAY

Volume	Invert	Avail.Storage	Storage Description
#1	214.00'	652 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
214.00	35	0	0
216.00	268	303	303
217.00	430	349	652

Summary for Subcatchment P1: PRE

Runoff = 0.01 cfs @ 21.37 hrs, Volume= 0.004 af, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

Area (sf)	CN	Description
89,643	30	Woods, Good, HSG A
6,051	55	Woods, Good, HSG B
95,694	32	Weighted Average
95,694		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0900	0.14		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.20"
2.5	176	0.0570	1.19		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.3	276	Total			

Summary for Pond POST: WETLANDS

Inflow Area = 2.846 ac, 60.18% Impervious, Inflow Depth = 0.67" for 10-year event
Inflow = 1.69 cfs @ 12.22 hrs, Volume= 0.160 af
Primary = 1.69 cfs @ 12.23 hrs, Volume= 0.160 af, Atten= 0%, Lag= 0.6 min

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs

Summary for Subcatchment PP: Panda Palace

Runoff = 3.37 cfs @ 12.07 hrs, Volume= 0.264 af, Depth> 4.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

	Area (sf)	CN	Description
*	29,109	98	Impervious
	29,109		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment PP.: Panda Palace

Runoff = 3.37 cfs @ 12.07 hrs, Volume= 0.264 af, Depth> 4.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

	Area (sf)	CN	Description
*	29,109	98	Impervious
	29,109		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond PRE: DP-PRE

Inflow Area = 2.865 ac, 23.32% Impervious, Inflow Depth > 1.12" for 10-year event
Inflow = 3.37 cfs @ 12.07 hrs, Volume= 0.269 af
Primary = 3.37 cfs @ 12.08 hrs, Volume= 0.269 af, Atten= 0%, Lag= 0.6 min

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs

Summary for Subcatchment S1: CB1

Runoff = 0.85 cfs @ 12.07 hrs, Volume= 0.059 af, Depth= 3.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

Area (sf)	CN	Description
7,051	98	Paved parking, HSG A
1,647	39	>75% Grass cover, Good, HSG A
8,698	87	Weighted Average
1,647		18.94% Pervious Area
7,051		81.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment S2: CB2

Runoff = 1.06 cfs @ 12.07 hrs, Volume= 0.073 af, Depth= 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

Area (sf)	CN	Description
9,128	98	Paved parking, HSG A
3,744	39	>75% Grass cover, Good, HSG A
12,872	81	Weighted Average
3,744		29.09% Pervious Area
9,128		70.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment S3: CB3

Runoff = 0.73 cfs @ 12.08 hrs, Volume= 0.051 af, Depth= 1.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

Area (sf)	CN	Description
7,283	98	Paved parking, HSG A
4,588	39	>75% Grass cover, Good, HSG A
1,982	30	Woods, Good, HSG A
13,853	69	Weighted Average
6,570		47.43% Pervious Area
7,283		52.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment S4: CB4

Runoff = 0.81 cfs @ 12.07 hrs, Volume= 0.056 af, Depth= 2.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

Area (sf)	CN	Description
7,076	98	Paved parking, HSG A
3,046	39	>75% Grass cover, Good, HSG A
10,122	80	Weighted Average
3,046		30.09% Pervious Area
7,076		69.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment S5: PLAYGROUND

Runoff = 0.57 cfs @ 12.07 hrs, Volume= 0.045 af, Depth> 4.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

Area (sf)	CN	Description
4,941	98	Paved parking, HSG A
4,941		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment S6: BAS1

Runoff = 0.00 cfs @ 12.46 hrs, Volume= 0.002 af, Depth= 0.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

Area (sf)	CN	Description
4,293	39	>75% Grass cover, Good, HSG A
21	98	Paved parking, HSG A
4,314	39	Weighted Average
4,293		99.51% Pervious Area
21		0.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment S7: DIRECT

Runoff = 0.04 cfs @ 12.67 hrs, Volume= 0.015 af, Depth= 0.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

	Area (sf)	CN	Description
*	783	39	Disconnected Sidewalk, HSG A
	5,480	30	Woods, Good, HSG A
	3,631	55	Woods, Good, HSG B
	17,744	39	>75% Grass cover, Good, HSG A
	2,420	61	>75% Grass cover, Good, HSG B
	30,058	41	Weighted Average
	30,058		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	6	0.0200	0.78		**Sheet Flow, IM** Smooth surfaces n= 0.011 P2= 3.20"
1.8	22	0.0636	0.20		**Sheet Flow, GR** Grass: Short n= 0.150 P2= 3.20"
1.2	25	0.2400	0.35		**Sheet Flow, GR** Grass: Short n= 0.150 P2= 3.20"
1.4	20	0.1000	0.23		**Sheet Flow, GR** Grass: Short n= 0.150 P2= 3.20"
18.5	74	0.0160	0.07		**Sheet Flow, W** Woods: Light underbrush n= 0.400 P2= 3.20"
23.0	147	Total			

Summary for Subcatchment S8: ROOF

Runoff = 1.16 cfs @ 12.07 hrs, Volume= 0.091 af, Depth> 4.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

Area (sf)	CN	Description
10,000	98	Roofs, HSG A
10,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond SUB1: DMH1/DMH2

Inflow Area = 1.163 ac, 89.36% Impervious, Inflow Depth > 4.09" for 10-year event
Inflow = 5.28 cfs @ 12.08 hrs, Volume= 0.396 af
Outflow = 1.70 cfs @ 12.37 hrs, Volume= 1.012 af, Atten= 68%, Lag= 17.4 min
Discarded = 1.70 cfs @ 12.37 hrs, Volume= 1.012 af
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 216.25' @ 12.37 hrs Surf.Area= 2,608 sf Storage= 3,145 cf
Flood Elev= 218.00' Surf.Area= 2,608 sf Storage= 5,778 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Volume	Invert	Avail.Storage	Storage Description
#1A	214.50'	2,365 cf	**25.25'W x 103.30'L x 3.50'H Field A** 9,129 cf Overall - 3,216 cf Embedded = 5,913 cf x 40.0% Voids
#2A	215.00'	3,216 cf	**ADS_StormTech SC-740 +Cap** x 70 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 70 Chambers in 5 Rows
#3	215.00'	72 cf	**4.00'D x 5.72'H DMH1**-Impervious
#4	215.00'	84 cf	**4.00'D x 6.65'H DMH2**-Impervious
#5	214.80'	78 cf	**4.00'D x 6.20'H DMH3**-Impervious
#6	216.25'	81 cf	**15.0" Round OUTLET PIPE**-Impervious L= 66.0'
		5,895 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	214.50'	**15.000 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 212.50'
#2	Primary	212.60'	**10.0" Round Culvert** L= 113.0' Ke= 0.500 Inlet / Outlet Invert= 212.60' / 212.00' S= 0.0053 '/' Cc= 0.900 n= 0.012, Flow Area= 0.55 sf
#3	Device 2	217.60'	**4.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s) 2.3' Crest Height

Discarded OutFlow Max=1.70 cfs @ 12.37 hrs HW=216.25' (Free Discharge)
└**1=Exfiltration** (Controls 1.70 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=214.50' TW=0.00' (Dynamic Tailwater)
└**2=Culvert** (Passes 0.00 cfs of 2.44 cfs potential flow)
└**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond TD1: TRENCH DRAIN

Inflow Area = 0.113 ac,100.00% Impervious, Inflow Depth > 4.74" for 10-year event
Inflow = 0.57 cfs @ 12.07 hrs, Volume= 0.045 af
Outflow = 0.57 cfs @ 12.08 hrs, Volume= 0.045 af, Atten= 0%, Lag= 0.6 min
Primary = 0.57 cfs @ 12.08 hrs, Volume= 0.045 af

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 218.12' @ 12.08 hrs
Flood Elev= 220.95'

Device	Routing	Invert	Outlet Devices
#1	Primary	217.50'	**6.0" Round Culvert** L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 217.50' / 217.00' S= 0.0192 '/' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf

Primary OutFlow Max=0.57 cfs @ 12.08 hrs HW=218.12' TW=217.34' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 0.57 cfs @ 2.92 fps)

Time span=1.00-72.00 hrs, dt=0.01 hrs, 7101 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Pond AD: Area Drain Peak Elev=217.83' Inflow=2.12 cfs 0.163 af
15.0" Round Culvert n=0.012 L=54.0' S=0.0050 '/' Outflow=2.12 cfs 0.163 af

Pond BAS1: BASIN Peak Elev=217.07' Storage=2,878 cf Inflow=1.72 cfs 0.130 af
Discarded=0.04 cfs 0.093 af Primary=0.28 cfs 0.038 af Outflow=0.31 cfs 0.130 af

Pond CB1: CB1 Peak Elev=216.45' Inflow=0.46 cfs 0.031 af
15.0" Round Culvert n=0.012 L=107.0' S=0.0050 '/' Outflow=0.46 cfs 0.031 af

Pond CB2: CB2 Peak Elev=215.43' Inflow=0.51 cfs 0.035 af
15.0" Round Culvert n=0.012 L=3.0' S=0.0000 '/' Outflow=0.51 cfs 0.035 af

Pond CB3: CB3 Peak Elev=217.09' Inflow=0.98 cfs 0.076 af
15.0" Round Culvert n=0.012 L=48.0' S=0.0050 '/' Outflow=0.98 cfs 0.076 af

Pond CB4: CB4 Peak Elev=217.08' Inflow=1.36 cfs 0.103 af
15.0" Round Culvert n=0.012 L=14.0' S=0.0186 '/' Outflow=1.36 cfs 0.103 af

Pond FB1: FOREBAY Peak Elev=0.00' Storage=0 cf

SubcatchmentP1: PRE Runoff Area=95,694 sf 0.00% Impervious Runoff Depth=0.00"
Flow Length=276' Tc=14.3 min CN=32 Runoff=0.00 cfs 0.000 af

Pond POST: WETLANDS Inflow=0.28 cfs 0.038 af
Primary=0.28 cfs 0.038 af

SubcatchmentPP: Panda Palace Runoff Area=29,109 sf 100.00% Impervious Runoff Depth=2.93"
Tc=5.0 min CN=98 Runoff=2.12 cfs 0.163 af

SubcatchmentPP.: Panda Palace Runoff Area=29,109 sf 100.00% Impervious Runoff Depth=2.93"
Tc=5.0 min CN=98 Runoff=2.12 cfs 0.163 af

Pond PRE: DP-PRE Inflow=2.12 cfs 0.163 af
Primary=2.12 cfs 0.163 af

SubcatchmentS1: CB1 Runoff Area=8,698 sf 81.06% Impervious Runoff Depth=1.88"
Tc=5.0 min CN=87 Runoff=0.46 cfs 0.031 af

SubcatchmentS2: CB2 Runoff Area=12,872 sf 70.91% Impervious Runoff Depth=1.44"
Tc=5.0 min CN=81 Runoff=0.51 cfs 0.035 af

SubcatchmentS3: CB3 Runoff Area=13,853 sf 52.57% Impervious Runoff Depth=0.76"
Tc=5.0 min CN=69 Runoff=0.26 cfs 0.020 af

SubcatchmentS4: CB4 Runoff Area=10,122 sf 69.91% Impervious Runoff Depth=1.37"
Tc=5.0 min CN=80 Runoff=0.38 cfs 0.027 af

SubcatchmentS5: PLAYGROUND Runoff Area=4,941 sf 100.00% Impervious Runoff Depth=2.93"
Tc=5.0 min CN=98 Runoff=0.36 cfs 0.028 af

SubcatchmentS6: BAS1 Runoff Area=4,314 sf 0.49% Impervious Runoff Depth=0.00"
Tc=5.0 min CN=39 Runoff=0.00 cfs 0.000 af

SubcatchmentS7: DIRECT Runoff Area=30,058 sf 0.00% Impervious Runoff Depth=0.01"
Flow Length=147' Tc=23.0 min CN=41 Runoff=0.00 cfs 0.000 af

SubcatchmentS8: ROOF Runoff Area=10,000 sf 100.00% Impervious Runoff Depth=2.93"
Tc=5.0 min CN=98 Runoff=0.73 cfs 0.056 af

Pond SUB1: DMH1/DMH2 Peak Elev=215.30' Storage=1,185 cf Inflow=3.09 cfs 0.230 af
Discarded=1.27 cfs 0.923 af Primary=0.00 cfs 0.000 af Outflow=1.27 cfs 0.923 af

Pond TD1: TRENCH DRAIN Peak Elev=217.90' Inflow=0.36 cfs 0.028 af
6.0" Round Culvert n=0.012 L=26.0' S=0.0192 '/' Outflow=0.36 cfs 0.028 af

Total Runoff Area = 5.711 ac Runoff Volume = 0.523 af Average Runoff Depth = 1.10"
58.31% Pervious = 3.330 ac 41.69% Impervious = 2.381 ac

Time span=1.00-72.00 hrs, dt=0.01 hrs, 7101 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Pond AD: Area Drain Peak Elev=218.12' Inflow=3.37 cfs 0.264 af
15.0" Round Culvert n=0.012 L=54.0' S=0.0050 '/' Outflow=3.37 cfs 0.264 af

Pond BAS1: BASIN Peak Elev=217.63' Storage=3,876 cf Inflow=3.26 cfs 0.244 af
Discarded=0.04 cfs 0.100 af Primary=1.69 cfs 0.145 af Outflow=1.73 cfs 0.244 af

Pond CB1: CB1 Peak Elev=216.58' Inflow=0.85 cfs 0.059 af
15.0" Round Culvert n=0.012 L=107.0' S=0.0050 '/' Outflow=0.85 cfs 0.059 af

Pond CB2: CB2 Peak Elev=216.25' Inflow=1.06 cfs 0.073 af
15.0" Round Culvert n=0.012 L=3.0' S=0.0000 '/' Outflow=1.06 cfs 0.073 af

Pond CB3: CB3 Peak Elev=217.75' Inflow=1.89 cfs 0.142 af
15.0" Round Culvert n=0.012 L=48.0' S=0.0050 '/' Outflow=1.89 cfs 0.142 af

Pond CB4: CB4 Peak Elev=217.69' Inflow=2.70 cfs 0.198 af
15.0" Round Culvert n=0.012 L=14.0' S=0.0186 '/' Outflow=2.70 cfs 0.198 af

Pond FB1: FOREBAY Peak Elev=0.00' Storage=0 cf

SubcatchmentP1: PRE Runoff Area=95,694 sf 0.00% Impervious Runoff Depth=0.02"
Flow Length=276' Tc=14.3 min CN=32 Runoff=0.01 cfs 0.004 af

Pond POST: WETLANDS Inflow=1.69 cfs 0.160 af
Primary=1.69 cfs 0.160 af

SubcatchmentPP: Panda Palace Runoff Area=29,109 sf 100.00% Impervious Runoff Depth>4.74"
Tc=5.0 min CN=98 Runoff=3.37 cfs 0.264 af

SubcatchmentPP.: Panda Palace Runoff Area=29,109 sf 100.00% Impervious Runoff Depth>4.74"
Tc=5.0 min CN=98 Runoff=3.37 cfs 0.264 af

Pond PRE: DP-PRE Inflow=3.37 cfs 0.269 af
Primary=3.37 cfs 0.269 af

SubcatchmentS1: CB1 Runoff Area=8,698 sf 81.06% Impervious Runoff Depth=3.55"
Tc=5.0 min CN=87 Runoff=0.85 cfs 0.059 af

SubcatchmentS2: CB2 Runoff Area=12,872 sf 70.91% Impervious Runoff Depth=2.97"
Tc=5.0 min CN=81 Runoff=1.06 cfs 0.073 af

SubcatchmentS3: CB3 Runoff Area=13,853 sf 52.57% Impervious Runoff Depth=1.94"
Tc=5.0 min CN=69 Runoff=0.73 cfs 0.051 af

SubcatchmentS4: CB4 Runoff Area=10,122 sf 69.91% Impervious Runoff Depth=2.88"
Tc=5.0 min CN=80 Runoff=0.81 cfs 0.056 af

SubcatchmentS5: PLAYGROUND Runoff Area=4,941 sf 100.00% Impervious Runoff Depth>4.74"
Tc=5.0 min CN=98 Runoff=0.57 cfs 0.045 af

SubcatchmentS6: BAS1 Runoff Area=4,314 sf 0.49% Impervious Runoff Depth=0.20"
Tc=5.0 min CN=39 Runoff=0.00 cfs 0.002 af

SubcatchmentS7: DIRECT Runoff Area=30,058 sf 0.00% Impervious Runoff Depth=0.27"
Flow Length=147' Tc=23.0 min CN=41 Runoff=0.04 cfs 0.015 af

SubcatchmentS8: ROOF Runoff Area=10,000 sf 100.00% Impervious Runoff Depth>4.74"
Tc=5.0 min CN=98 Runoff=1.16 cfs 0.091 af

Pond SUB1: DMH1/DMH2 Peak Elev=216.25' Storage=3,145 cf Inflow=5.28 cfs 0.396 af
Discarded=1.70 cfs 1.012 af Primary=0.00 cfs 0.000 af Outflow=1.70 cfs 1.012 af

Pond TD1: TRENCH DRAIN Peak Elev=218.12' Inflow=0.57 cfs 0.045 af
6.0" Round Culvert n=0.012 L=26.0' S=0.0192 '/' Outflow=0.57 cfs 0.045 af

Total Runoff Area = 5.711 ac Runoff Volume = 0.925 af Average Runoff Depth = 1.94"
58.31% Pervious = 3.330 ac 41.69% Impervious = 2.381 ac

Time span=1.00-72.00 hrs, dt=0.01 hrs, 7101 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Pond AD: Area Drain Peak Elev=218.30' Inflow=4.15 cfs 0.327 af
15.0" Round Culvert n=0.012 L=54.0' S=0.0050 '/' Outflow=4.15 cfs 0.327 af

Pond BAS1: BASIN Peak Elev=217.97' Storage=4,576 cf Inflow=4.29 cfs 0.322 af
Discarded=0.05 cfs 0.103 af Primary=2.28 cfs 0.219 af Outflow=2.33 cfs 0.322 af

Pond CB1: CB1 Peak Elev=216.97' Inflow=1.09 cfs 0.077 af
15.0" Round Culvert n=0.012 L=107.0' S=0.0050 '/' Outflow=1.09 cfs 0.077 af

Pond CB2: CB2 Peak Elev=216.96' Inflow=1.42 cfs 0.098 af
15.0" Round Culvert n=0.012 L=3.0' S=0.0000 '/' Outflow=1.42 cfs 0.098 af

Pond CB3: CB3 Peak Elev=218.25' Inflow=2.50 cfs 0.187 af
15.0" Round Culvert n=0.012 L=48.0' S=0.0050 '/' Outflow=2.50 cfs 0.187 af

Pond CB4: CB4 Peak Elev=218.13' Inflow=3.59 cfs 0.262 af
15.0" Round Culvert n=0.012 L=14.0' S=0.0186 '/' Outflow=3.59 cfs 0.262 af

Pond FB1: FOREBAY Peak Elev=0.00' Storage=0 cf

SubcatchmentP1: PRE Runoff Area=95,694 sf 0.00% Impervious Runoff Depth=0.15"
Flow Length=276' Tc=14.3 min CN=32 Runoff=0.04 cfs 0.028 af

Pond POST: WETLANDS Inflow=2.32 cfs 0.253 af
Primary=2.32 cfs 0.253 af

SubcatchmentPP: Panda Palace Runoff Area=29,109 sf 100.00% Impervious Runoff Depth>5.88"
Tc=5.0 min CN=98 Runoff=4.15 cfs 0.327 af

SubcatchmentPP.: Panda Palace Runoff Area=29,109 sf 100.00% Impervious Runoff Depth>5.88"
Tc=5.0 min CN=98 Runoff=4.15 cfs 0.327 af

Pond PRE: DP-PRE Inflow=4.15 cfs 0.355 af
Primary=4.15 cfs 0.355 af

SubcatchmentS1: CB1 Runoff Area=8,698 sf 81.06% Impervious Runoff Depth=4.63"
Tc=5.0 min CN=87 Runoff=1.09 cfs 0.077 af

SubcatchmentS2: CB2 Runoff Area=12,872 sf 70.91% Impervious Runoff Depth=3.99"
Tc=5.0 min CN=81 Runoff=1.42 cfs 0.098 af

SubcatchmentS3: CB3 Runoff Area=13,853 sf 52.57% Impervious Runoff Depth=2.81"
Tc=5.0 min CN=69 Runoff=1.08 cfs 0.074 af

SubcatchmentS4: CB4 Runoff Area=10,122 sf 69.91% Impervious Runoff Depth=3.89"
Tc=5.0 min CN=80 Runoff=1.09 cfs 0.075 af

SubcatchmentS5: PLAYGROUND Runoff Area=4,941 sf 100.00% Impervious Runoff Depth>5.88"
Tc=5.0 min CN=98 Runoff=0.70 cfs 0.056 af

SubcatchmentS6: BAS1 Runoff Area=4,314 sf 0.49% Impervious Runoff Depth=0.48"
Tc=5.0 min CN=39 Runoff=0.02 cfs 0.004 af

SubcatchmentS7: DIRECT Runoff Area=30,058 sf 0.00% Impervious Runoff Depth=0.60"
Flow Length=147' Tc=23.0 min CN=41 Runoff=0.16 cfs 0.034 af

SubcatchmentS8: ROOF Runoff Area=10,000 sf 100.00% Impervious Runoff Depth>5.88"
Tc=5.0 min CN=98 Runoff=1.43 cfs 0.113 af

Pond SUB1: DMH1/DMH2 Peak Elev=216.95' Storage=4,463 cf Inflow=6.67 cfs 0.503 af
Discarded=2.02 cfs 1.070 af Primary=0.00 cfs 0.000 af Outflow=2.02 cfs 1.070 af

Pond TD1: TRENCH DRAIN Peak Elev=218.32' Inflow=0.70 cfs 0.056 af
6.0" Round Culvert n=0.012 L=26.0' S=0.0192 '/' Outflow=0.70 cfs 0.056 af

Total Runoff Area = 5.711 ac Runoff Volume = 1.214 af Average Runoff Depth = 2.55"
58.31% Pervious = 3.330 ac 41.69% Impervious = 2.381 ac

Time span=1.00-72.00 hrs, dt=0.01 hrs, 7101 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Pond AD: Area Drain Peak Elev=218.74' Inflow=5.35 cfs 0.425 af
15.0" Round Culvert n=0.012 L=54.0' S=0.0050 '/' Outflow=5.35 cfs 0.425 af

Pond BAS1: BASIN Peak Elev=218.43' Storage=5,633 cf Inflow=5.98 cfs 0.446 af
Discarded=0.06 cfs 0.106 af Primary=2.90 cfs 0.340 af Outflow=2.95 cfs 0.446 af

Pond CB1: CB1 Peak Elev=217.91' Inflow=1.46 cfs 0.105 af
15.0" Round Culvert n=0.012 L=107.0' S=0.0050 '/' Outflow=1.46 cfs 0.105 af

Pond CB2: CB2 Peak Elev=217.92' Inflow=1.98 cfs 0.138 af
15.0" Round Culvert n=0.012 L=3.0' S=0.0000 '/' Outflow=1.98 cfs 0.138 af

Pond CB3: CB3 Peak Elev=219.07' Inflow=3.47 cfs 0.258 af
15.0" Round Culvert n=0.012 L=48.0' S=0.0050 '/' Outflow=3.47 cfs 0.258 af

Pond CB4: CB4 Peak Elev=218.79' Inflow=5.00 cfs 0.365 af
15.0" Round Culvert n=0.012 L=14.0' S=0.0186 '/' Outflow=5.00 cfs 0.365 af

Pond FB1: FOREBAY Peak Elev=0.00' Storage=0 cf

SubcatchmentP1: PRE Runoff Area=95,694 sf 0.00% Impervious Runoff Depth=0.53"
Flow Length=276' Tc=14.3 min CN=32 Runoff=0.38 cfs 0.096 af

Pond POST: WETLANDS Inflow=5.23 cfs 0.440 af
Primary=5.23 cfs 0.440 af

SubcatchmentPP: Panda Palace Runoff Area=29,109 sf 100.00% Impervious Runoff Depth>7.63"
Tc=5.0 min CN=98 Runoff=5.35 cfs 0.425 af

SubcatchmentPP.: Panda Palace Runoff Area=29,109 sf 100.00% Impervious Runoff Depth>7.63"
Tc=5.0 min CN=98 Runoff=5.35 cfs 0.425 af

Pond PRE: DP-PRE Inflow=5.35 cfs 0.521 af
Primary=5.35 cfs 0.521 af

SubcatchmentS1: CB1 Runoff Area=8,698 sf 81.06% Impervious Runoff Depth=6.32"
Tc=5.0 min CN=87 Runoff=1.46 cfs 0.105 af

SubcatchmentS2: CB2 Runoff Area=12,872 sf 70.91% Impervious Runoff Depth=5.62"
Tc=5.0 min CN=81 Runoff=1.98 cfs 0.138 af

SubcatchmentS3: CB3 Runoff Area=13,853 sf 52.57% Impervious Runoff Depth=4.24"
Tc=5.0 min CN=69 Runoff=1.64 cfs 0.112 af

SubcatchmentS4: CB4 Runoff Area=10,122 sf 69.91% Impervious Runoff Depth=5.50"
Tc=5.0 min CN=80 Runoff=1.53 cfs 0.107 af

SubcatchmentS5: PLAYGROUND Runoff Area=4,941 sf 100.00% Impervious Runoff Depth>7.63"
Tc=5.0 min CN=98 Runoff=0.91 cfs 0.072 af

SubcatchmentS6: BAS1 Runoff Area=4,314 sf 0.49% Impervious Runoff Depth=1.10"
Tc=5.0 min CN=39 Runoff=0.08 cfs 0.009 af

SubcatchmentS7: DIRECT Runoff Area=30,058 sf 0.00% Impervious Runoff Depth=1.29"
Flow Length=147' Tc=23.0 min CN=41 Runoff=0.48 cfs 0.074 af

SubcatchmentS8: ROOF Runoff Area=10,000 sf 100.00% Impervious Runoff Depth>7.63"
Tc=5.0 min CN=98 Runoff=1.84 cfs 0.146 af

Pond SUB1: DMH1/DMH2 Peak Elev=217.89' Storage=5,661 cf Inflow=8.79 cfs 0.668 af
Discarded=2.44 cfs 1.144 af Primary=2.06 cfs 0.027 af Outflow=4.51 cfs 1.171 af

Pond TD1: TRENCH DRAIN Peak Elev=219.07' Inflow=0.91 cfs 0.072 af
6.0" Round Culvert n=0.012 L=26.0' S=0.0192 '/' Outflow=0.91 cfs 0.072 af

Total Runoff Area = 5.711 ac Runoff Volume = 1.709 af Average Runoff Depth = 3.59"
58.31% Pervious = 3.330 ac 41.69% Impervious = 2.381 ac

Appendix 6:

MISCELLANEOUS CALCULATIONS

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JOB 2021-083
SHEET NO. 1 OF 1
CALCULATED BY CJC DATE 3-17-2022
CHECKED BY DATE
SCALE

Water Quality Volume (WQV) Calculations

$WQV = (1'')RA/12$
$R = 0.05 + 0.009I$

I = percent impervious coverage
R = volumetric runoff coefficient
A = contributing area

① Basin: $A = 43{,}240$ s.f.

$I = \frac{29{,}321 \text{ s.f. impervious}}{43{,}240 \text{ s.f. total}} = 67.83\%$

$R = 0.05 + 0.009(67.83) = 0.660$

$WQV = (1'')(0.660)(43240)/12 =$ **2,380 cf.**

Forebay = 25% (WQV) = $0.25(2{,}380) =$ **595 cf.**

② Subsurface Chambers: $A = 50{,}679$ s.f.

$I = \frac{45{,}288 \text{ s.f. impervious}}{50{,}679 \text{ s.f. total}} = 89.36\%$

$R = 0.05 + 0.009(89.36) = 0.854$

$WQV = (1'')(0.854)(50{,}679)/12 =$ **3,608 cf.**

WQV Check:

Basin Volume below outlet = 2,447 cf
Forebay Volume = 652 cf
Subsurface Volume below outlet = 5,345 cf

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DRAINAGE REPORT
The Learning Experience
501 Talcottville Road
Enfield, CT

ALTERNATIVE 2

Revised March 17, 2022

Prepared for:

Vernon Development, LLC
56 East Main Street
Avon, Connecticut 06001
(860) 677-5607

Project No. 2021-083

Prepared by:

J.R. Russo & Associates, LLC
Land Surveyors & Professional Engineers
P.O. Box 938
East Windsor, CT 06088
(860) 623-0569

I. INTRODUCTION

A. Project Description

Vernon Development, LLC and The Learning Experience are proposing the development of a 10,000 s.f. daycare center on Dart Hill Road near the intersection of Dart Hill Road and Talcottville Road (Rte. 83) in Vernon. The development will result in an impervious area of approximately 0.97 acres. Runoff from the development will be directed to a subsurface infiltration system and infiltration basin designed to provide treatment, ground water recharge, and peak flow attenuation in accordance with the Connecticut Stormwater Quality Manual.

B. Existing Conditions

The proposed 2.0 acre lot for the development will be split off of the existing 4.6 acre parcel at 501 Talcottville Road. The new lot for the development (the project site) will front Dart Hill Road to the north. Access to the site will be via one driveway off of Dart Hill Road and a second limited access driveway off of Talcottville Road. The site currently consists of undeveloped woodlands, including a wooded wetland on the southern portion of the lot. The wetlands ultimately discharge to Ogden Brook further to the south. Starting at the edge of the road, the site slopes southerly toward the wetland. In addition to runoff from the parcel, stormwater from the building and parking lot at the adjacent Panda Palace to the east, discharges onto the property via a leak-off in the concrete curb at the edge of the parking lot. This runoff flows across the development site into the on-site wetland.

Stormwater overflow from an existing stormwater management basin serving the Walgreens development on the north side of Dart Hill Road is also piped underneath the road to discharge onto the site. The discharge from the stormwater basin consists of a 6" PVC pipe which terminates in an existing manhole in Dart Hill Road. The manhole discharges onto the site via a 15" RCP.

Based on a review of the USDA Soil Survey of Connecticut, the majority of the soil in the area to be developed consists of Hartford sandy loam and the remaining soil on the western portion of the site is Udorthents-Urban land complex. (see Soils Map in Appendix 2). The USDA Soil Survey defines groups of soils into Hydrologic Soil Groups (HSG) according to their runoff-producing characteristics. Soils are assigned to four groups (A, B, C, and D Groups). In group A, are soils having a high infiltration rate when thoroughly wet and having a low runoff potential. They typically are deep, well drained, and sandy or gravelly. In group D, at the other extreme, are soils having a very slow infiltration rate and thus a high runoff potential. They have a hardpan or clay layer at or near the surface, have a permanent high water table, or are shallow over nearly impervious bedrock or other nearly impervious material. The classification of the Hartford sandy loam is HSG A and the Udorthents-Urban land complex is HSG B.

On December 17, 2021, a series of 5 test pits were performed in the area of the proposed development to confirm the existing soil conditions. Test pits were excavated to depths ranging from 62-90 inches. Soils encountered included 6-12 inches of topsoil over brown fine sandy loam subsoils to a depth of 18-30 inches, overlying red-brown sand and gravel. Soil mottling

indicative of the seasonal high water table was encountered in test pits TP1, TP2, and TP3. The depths of the mottling indicate a seasonal high water table approximately at the elevation of 212.0. Test pit logs are provided on the Site Plans.

Soil samples were collected from test pits 1 through 4 at depths ranging from 30-42 inches. These samples were submitted to New England Materials Testing Lab, LLC for permeability testing by ASTM D2434. Calculated permeabilities ranged from 1.10 in/hr for the sample collected at the bottom of the slope in TP1 to 33.95 in/hr for the sample collected mid-slope in TP4. Permeability test results are also provided in Appendix 3.

II. STORMWATER RUNOFF ANALYSIS

A. Methodology

Peak runoff flow rates were determined for pre- and post-development conditions using Applied Microcomputer System's HydroCAD™ Stormwater Modeling System. This computer software employs the SCS Technical Release 55 and 20 (TR-55 & TR-20) methodology. The potential stormwater impacts downstream were evaluated for the 2-yr, 10-yr, 25-yr, and 100-yr; 24-hour storm events. The rainfall for these storm events was taken from NOAA Atlas 14 provided in Appendix 1. Based on the present drainage patterns, all runoff from the proposed development area flows south into the on-site wetlands. As a result, the edge of the wetlands was selected as the design point. The runoff outlet from across the street will be diverted in order to bypass the on-site drainage system and discharge directly at the edge of the wetland. Thus, it acts independent from the site and was not included in these calculations.

B. Pre-Development Hydrology

The pre-development site was modeled as two subcatchments. Subcatchment PRE includes the approximately 2.20 acres of on-site development area that drains to the design point. Subcatchment PP includes the off-site runoff from the adjacent Panda Palace parcel. The pre-development drainage area map is provided in Appendix 4. The pre-development runoff characteristics of the contributing area is provided on the HydroCAD data sheets in Appendix 5. The pre-development discharge rates from the site during the design storms are summarized in Table 1.

C. Post-Development Hydrology

The proposed project will result in approximately 0.97 acres of new impervious area. The development will include a series of catch basins, trench drains, and piping to collect runoff from the development area and divert it to either a new infiltration basin in the southeast corner of the site or subsurface infiltration system under the parking lot. This system will include a riprap swale and area drain installed downgradient of the leak-off from the Panda Palace parking lot. This runoff will be collected and diverted to the subsurface infiltration system. In addition, the roof runoff will be collected and diverted towards the infiltration basin. The subsurface

infiltration system and infiltration basin have been designed in accordance with the CT Storm Water Quality Manual to provide treatment, groundwater recharge, and peak flow attenuation.

As discussed above, several test pits were completed at the site to verify soil conditions. Test pits TP1, TP2 and TP3 were all located within the vicinity of the proposed infiltration basin. Samples collected from these test pits at depths consistent with the proposed bottom of the basin were tested for permeability. The resulting permeabilities were 1.10 in/hr (TP1), 1.97 in/hr (TP2) and 2.34 in/hr (TP3). As a conservative measure, the slowest permeability rate of 1.10 in/hr was used as the basis for the design infiltration rate. This rate was further reduced by 50% to account for potential clogging resulting in a final design infiltration rate for the infiltration basin of 0.55 inches/hour. The subsurface infiltration system will be constructed further up the slope to the north in the vicinity of test pits TP4 and TP5. The soils in these test pits at the elevation of the proposed infiltration system included loose, sand and gravel. The resulting permeability for the soil sample collected from TP4 was 33.95 in/hr. As a conservative measure and to account for potential clogging, the design infiltration rate used for the subsurface infiltration system was selected to be 15.0 in/hr.

The infiltration basin will be equipped with a forebay separated from the main part of the basin by a stone filter berm. The bottom of the basin will be set at elevation 214 which allows 2 feet of separation to the seasonal high water table that was encountered in the test pits. The basin will be equipped with a multi-stage outlet structure constructed from a standard Type CL catch basin. The structures primary outlet will consist of an 8” orifice set at an elevation of 216.6. The secondary outlet will consist of the frame and grate to be set at elevation 218.4. The structure will discharge via a 10” outlet pipe at the edge of the wetland. The basin will also be equipped with an emergency 10-foot wide earthen spillway at elevation 218.5. The subsurface infiltration system under the parking lot will consist of 60 ADS SC740 chambers in stone. The bottom of the chambers will be set at an elevation of 215.0. The subsurface infiltration system will be connected to a proposed manhole for overflow from larger storm events exceeding the capacity of the storage and infiltration capacity of the chambers. In the proposed manhole, a weir set at 217.6 will overflow to a pipe discharging directly to the edge of the wetlands. The proposed storage capacities of the infiltration basin below the primary outlet was sized to exceed the water quality volume. Likewise, the surface basin forebay was sized to contain a minimum of 25% of the WQV per the requirements for infiltration basins. WQV calculations are provided in Appendix 6.

The same design point for the pre-development analysis was used for the post development analysis. The post development site was divided into 9 subcatchments. Subcatchments S1 and S2 include the areas that will be collected by the catch basins in the parking lot and discharged to the subsurface infiltration system. Subcatchments S3 and S4 include the areas that will be collected by the catch basins in the parking lot and discharged to the infiltration basin. Subcatchment S8 includes the roof runoff that will be discharged into a catch basin towards the infiltration basin. Subcatchment S5 includes runoff from the playground area that will be collected in a trench drain and piped directly to the infiltration basin. Subcatchment S6 includes the area that will directly sheet flow into the infiltration basin. Subcatchment S7 includes the area that will continue to drain overland directly to the design point (i.e. wetlands). Subcatchment PP includes the area of the adjacent Panda Palace that discharges to the development area.

The post development drainage area map is provided in Appendix 4. The post development runoff characteristics of the subcatchments are provided on the HydroCAD data sheets in Appendix 5. As shown in the Table 1, the post-development peak rates of runoff from the site to the design point will be maintained or reduced in comparison to the pre-development rates.

TABLE 1 – COMPARISON OF PRE- & POST-DEVELOPMENT DISCHARGE RATES (CFS) TO DESIGN POINT

	2-year	10-year	25-year	100-year
Pre-Development	2.1	3.4	4.2	5.4
Post Development	0.2	1.3	1.8	4.9

D. Pipe Sizing

The piping proposed at the site consists of smooth bore corrugated high density polyethylene pipe with smooth interior walls (CPEP-S). The roughness coefficient used for this pipe type is 0.012. The analysis provided in Appendix 5 indicates headwater elevation in the structure at each pipe inlet for the design storms and compares it to the flood elevation, which corresponds to the top of frame of the structure. The calculations indicate that all proposed pipes will have sufficient capacity to convey the 10-year storm event without surcharging out of the top of the structures.

E. Outlet Protection

Outfall protection for the pipe discharge from the Walgreens Stormwater Management Basin and subsurface infiltration system overflow at the edge of the wetland will consist of a Type A riprap apron. Outfall protection for the pipe discharge from the infiltration basin at the edge of the wetland will consist of a Type A riprap apron. Similarly, riprap channels will be installed at the inlets to the infiltration basin to convey runoff down the slope into the forebay. Outlet protection for the infiltration's spillway will consist of a 12" thick modified riprap slope extended 5 feet beyond the toe of the slope.

F. Summary of Results

The proposed design and analysis indicates that the proposed development will not result in negative impacts downstream. In addition, the proposed stormwater management system will intercept and divert the untreated runoff from the Panda Palace leak-off to the subsurface infiltration system where it will be treated prior to discharge, whereas previously it was discharged to the wetland without treatment.

Appendix 1:

RAINFALL DATA

NOAA Atlas 14, Volume 10, Version 3
Location name: Vernon Rockville, Connecticut, USA*
Latitude: 41.8502°, Longitude: -72.4855°
Elevation: 224.86 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.332 (0.254-0.434)	0.403 (0.308-0.528)	0.519 (0.395-0.684)	0.616 (0.466-0.814)	0.749 (0.551-1.03)	0.849 (0.614-1.20)	0.953 (0.672-1.39)	1.07 (0.718-1.60)	1.24 (0.803-1.92)	1.38 (0.875-2.18)
10-min	0.470 (0.359-0.615)	0.571 (0.436-0.748)	0.736 (0.560-0.967)	0.872 (0.660-1.15)	1.06 (0.780-1.46)	1.20 (0.868-1.69)	1.35 (0.951-1.97)	1.52 (1.02-2.27)	1.76 (1.14-2.72)	1.96 (1.24-3.08)
15-min	0.553 (0.423-0.724)	0.672 (0.513-0.880)	0.866 (0.658-1.14)	1.03 (0.778-1.36)	1.25 (0.918-1.72)	1.41 (1.02-1.99)	1.59 (1.12-2.32)	1.79 (1.20-2.67)	2.07 (1.34-3.20)	2.30 (1.46-3.63)
30-min	0.748 (0.571-0.979)	0.909 (0.694-1.19)	1.17 (0.892-1.54)	1.39 (1.05-1.84)	1.69 (1.25-2.34)	1.92 (1.39-2.71)	2.16 (1.52-3.15)	2.43 (1.63-3.62)	2.81 (1.82-4.34)	3.13 (1.98-4.93)
60-min	0.943 (0.720-1.23)	1.15 (0.875-1.50)	1.48 (1.13-1.95)	1.76 (1.33-2.32)	2.14 (1.57-2.95)	2.42 (1.75-3.42)	2.73 (1.92-3.99)	3.07 (2.05-4.58)	3.56 (2.30-5.49)	3.96 (2.51-6.23)
2-hr	1.21 (0.931-1.58)	1.47 (1.12-1.91)	1.88 (1.44-2.46)	2.23 (1.69-2.93)	2.70 (2.00-3.72)	3.05 (2.22-4.30)	3.43 (2.44-5.03)	3.89 (2.61-5.77)	4.57 (2.96-7.02)	5.15 (3.27-8.06)
3-hr	1.40 (1.08-1.82)	1.69 (1.30-2.19)	2.16 (1.66-2.82)	2.56 (1.95-3.36)	3.10 (2.30-4.26)	3.50 (2.56-4.93)	3.94 (2.82-5.78)	4.47 (3.01-6.62)	5.30 (3.44-8.10)	6.01 (3.82-9.36)
6-hr	1.76 (1.36-2.28)	2.13 (1.65-2.76)	2.74 (2.11-3.56)	3.25 (2.49-4.24)	3.95 (2.95-5.41)	4.46 (3.28-6.26)	5.02 (3.62-7.35)	5.72 (3.86-8.42)	6.82 (4.44-10.4)	7.78 (4.96-12.0)
12-hr	2.17 (1.69-2.80)	2.66 (2.06-3.42)	3.45 (2.67-4.46)	4.10 (3.16-5.33)	5.01 (3.76-6.83)	5.67 (4.19-7.92)	6.40 (4.63-9.32)	7.31 (4.95-10.7)	8.74 (5.71-13.2)	9.98 (6.38-15.3)
24-hr	2.56 (1.99-3.27)	3.16 (2.47-4.06)	4.16 (3.23-5.35)	4.98 (3.85-6.45)	6.12 (4.62-8.32)	6.95 (5.16-9.68)	7.87 (5.74-11.4)	9.04 (6.14-13.1)	10.9 (7.13-16.3)	12.5 (8.03-19.1)
2-day	2.88 (2.26-3.67)	3.61 (2.83-4.61)	4.81 (3.75-6.16)	5.80 (4.50-7.47)	7.17 (5.44-9.72)	8.16 (6.10-11.3)	9.28 (6.82-13.5)	10.7 (7.30-15.5)	13.1 (8.59-19.5)	15.2 (9.77-23.0)
3-day	3.13 (2.46-3.98)	3.94 (3.09-5.01)	5.25 (4.10-6.70)	6.33 (4.93-8.12)	7.83 (5.96-10.6)	8.91 (6.69-12.4)	10.1 (7.48-14.7)	11.7 (8.01-16.9)	14.3 (9.44-21.3)	16.7 (10.8-25.2)
4-day	3.37 (2.65-4.27)	4.22 (3.32-5.36)	5.61 (4.40-7.15)	6.77 (5.28-8.67)	8.36 (6.37-11.3)	9.52 (7.15-13.2)	10.8 (7.99-15.7)	12.5 (8.55-18.0)	15.3 (10.1-22.7)	17.8 (11.5-26.8)
7-day	4.00 (3.16-5.06)	4.96 (3.92-6.28)	6.53 (5.14-8.29)	7.83 (6.13-9.99)	9.62 (7.35-12.9)	10.9 (8.22-15.0)	12.4 (9.15-17.8)	14.3 (9.78-20.4)	17.3 (11.4-25.5)	20.0 (12.9-30.0)
10-day	4.64 (3.68-5.85)	5.66 (4.48-7.14)	7.32 (5.78-9.27)	8.70 (6.83-11.1)	10.6 (8.11-14.2)	12.0 (9.02-16.4)	13.5 (9.98-19.3)	15.5 (10.6-22.1)	18.6 (12.3-27.3)	21.3 (13.8-31.8)
20-day	6.67 (5.31-8.37)	7.75 (6.17-9.74)	9.53 (7.55-12.0)	11.0 (8.67-13.9)	13.0 (9.97-17.2)	14.5 (10.9-19.5)	16.1 (11.8-22.5)	18.0 (12.5-25.5)	20.8 (13.9-30.4)	23.2 (15.1-34.4)
30-day	8.40 (6.70-10.5)	9.51 (7.58-11.9)	11.3 (8.99-14.2)	12.8 (10.1-16.2)	14.9 (11.4-19.5)	16.5 (12.3-21.9)	18.1 (13.2-24.9)	19.9 (13.8-27.9)	22.3 (14.9-32.4)	24.3 (15.9-36.0)
45-day	10.6 (8.45-13.2)	11.7 (9.35-14.6)	13.6 (10.8-17.0)	15.1 (12.0-19.0)	17.2 (13.2-22.4)	18.9 (14.1-24.9)	20.5 (14.8-27.8)	22.1 (15.4-31.0)	24.3 (16.3-35.0)	25.8 (16.9-38.1)
60-day	12.4 (9.92-15.4)	13.5 (10.8-16.9)	15.4 (12.3-19.3)	17.0 (13.5-21.4)	19.2 (14.7-24.8)	20.9 (15.7-27.5)	22.6 (16.3-30.4)	24.1 (16.8-33.6)	26.0 (17.4-37.4)	27.3 (17.8-40.1)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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PF graphical

Appendix 2:

NRCS SOILS INFORMATION

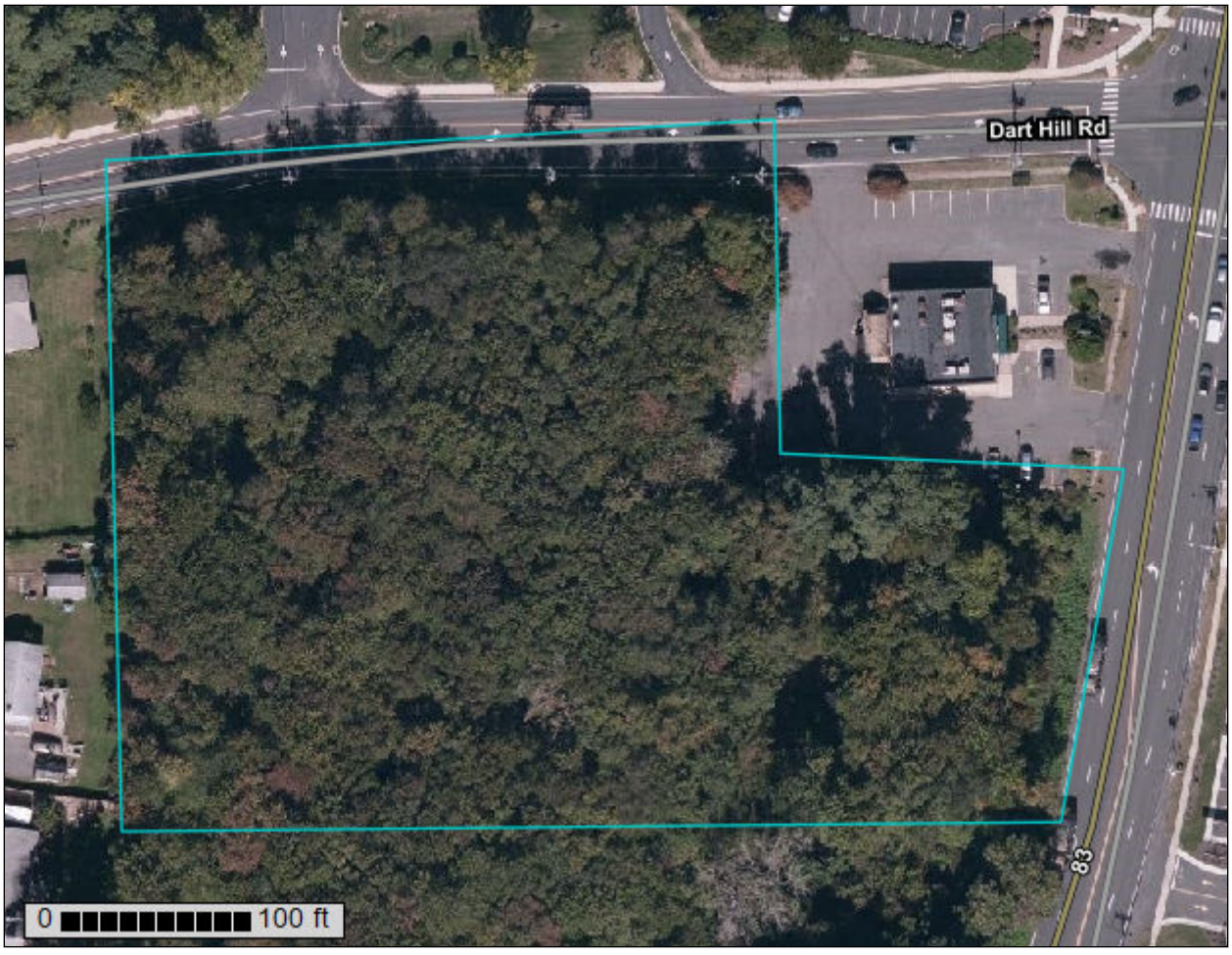
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for State of Connecticut



November 19, 2021

Custom Soil Resource Report
Soil Map



Map Scale: 1:969 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 10 20 40 60

Feet
0 45 90 180 270

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
33B	Hartford sandy loam, 3 to 8 percent slopes	3.3	91.3%
306	Udorthents-Urban land complex	0.3	8.7%
Totals for Area of Interest		**3.7**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

State of Connecticut

33B—Hartford sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9lmw
Elevation: 0 to 1,200 feet
Mean annual precipitation: 43 to 54 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 140 to 185 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Hartford and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hartford

Setting

Landform: Terraces, outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy glaciofluvial deposits derived from sandstone and/or basalt

Typical profile

Ap - 0 to 8 inches: sandy loam
Bw1 - 8 to 20 inches: sandy loam
Bw2 - 20 to 26 inches: loamy sand
2C - 26 to 65 inches: stratified very gravelly coarse sand to loamy fine sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: A
Ecological site: F145XY008MA - Dry Outwash
Hydric soil rating: No

Minor Components

Penwood

Percent of map unit: 5 percent
Landform: Terraces, outwash plains
Down-slope shape: Convex

Across-slope shape: Linear
Hydric soil rating: No

Ellington

Percent of map unit: 5 percent
Landform: Terraces, outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Manchester

Percent of map unit: 5 percent
Landform: Terraces, outwash plains, kames, eskers
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Branford

Percent of map unit: 5 percent
Landform: Terraces, outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

306—Udorthents-Urban land complex

Map Unit Setting

National map unit symbol: 9lmg
Elevation: 0 to 2,000 feet
Mean annual precipitation: 43 to 56 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 120 to 185 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents and similar soils: 50 percent
Urban land: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents

Setting

Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Drift

Typical profile

A - 0 to 5 inches: loam
C1 - 5 to 21 inches: gravelly loam
C2 - 21 to 80 inches: very gravelly sandy loam

Properties and qualities

Slope: 0 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 1.98 in/hr)
Depth to water table: About 54 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Urban Land

Typical profile

H - 0 to 6 inches: material

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: Unranked

Minor Components

Unnamed, undisturbed soils

Percent of map unit: 8 percent
Hydric soil rating: No

Udorthents, wet substratum

Percent of map unit: 5 percent
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Rock outcrop

Percent of map unit: 2 percent
Hydric soil rating: No

Appendix 3:

PERMEABILITY TEST RESULTS

NEW ENGLAND MATERIALS TESTING LAB, LLC.
NEW ENGLAND REGIONAL OFFICE
72 Bissell Street Manchester, CT 06040 • Tel: 860-783-5830 • Fax: 860-783-5832

Client: JR Russo Surveyors Engineers
P. O Box 938
East Windsor, CT. 06088

Report #: 001

Lab ID: 098-21

Project: 501Talcottville Road Vernon, CT.

Client ID: TP-1

Technician: Z. A

Date: 12/27/2021

LAB PERMEABILITY TEST

Sample description: Reddish brown silty clayey sand.

Location: Onsite (501Talcottville Red Vernon, CT).

Sample depth: 30" to 36"

Method: Permeability by ASTM D2434 (Constant Head Method)

k = QL/ath

Where k = coefficient of permeability,

Q = quantity of water discharged,	Q =	800 cm^3
L = length of sample in centimeters	L =	15.24 cm
A = cross sectional area of specimen,	A =	43.10 cm^2
t = total time for discharge, in seconds	t =	5940 sec
h = difference in head manometers,	h =	61.5 cm

k = 0.00077435 cm/sec.

k = 1.0975 inch/hour

Reported To: JR Russo Surveyors Engineers

Submitted By: New England Materials Testing Lab, LLC.

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NEMT accepts no liability for work executed by others.

NEW ENGLAND MATERIALS TESTING LAB, LLC.
NEW ENGLAND REGIONAL OFFICE
72 Bissell Street Manchester, CT 06040 • Tel: 860-783-5830 • Fax: 860-783-5832

Client: JR Russo Surveyors Engineers
P. O Box 938
East Windsor, CT. 06088

Report #: 002

Lab ID: 099-21

Project: 501Talcottville Road Vernon, CT.

Client ID: TP-2

Technician: Z. A

Date: 12/27/2021

LAB PERMEABILITY TEST

Sample description: Reddish brown sand bank run gravel and fines.

Location: Onsite (501Talcottville Red Vernon, CT).

Sample depth: 30" to 36"

Method: Permeability by ASTM D2434 (Constant Head Method)

k = QL/ath

Where k = coefficient of permeability,

Q = quantity of water discharged,	Q =	1000 cm^3
L = length of sample in centimeters	L =	15.24 cm
A = cross sectional area of specimen,	A =	43.10 cm^2
t = total time for discharge, in seconds	t =	4140 sec
h = difference in head manometers,	h =	61.5 cm

k = 0.001388776 cm/sec.

k = 1.968 inch/hour

Reported To: JR Russo Surveyors Engineers

Submitted By: New England Materials Testing Lab, LLC.

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NEMT accepts no liability for work executed by others.

NEW ENGLAND MATERIALS TESTING LAB, LLC.
NEW ENGLAND REGIONAL OFFICE
72 Bissell Street Manchester, CT 06040 • Tel: 860-783-5830 • Fax: 860-783-5832

Client: JR Russo Surveyors Engineers
P. O Box 938
East Windsor, CT. 06088

Report #: 003

Lab ID: 100-21

Project: 501Talcottville Road Vernon, CT.

Client ID: TP-3

Technician: Z. A

Date: 12/27/2021

LAB PERMEABILITY TEST

Sample description: Dark brown silty clayey sand and gravel.

Location: Onsite (501Talcottville Red Vernon, CT).

Sample depth: 36" to 42"

Method: Permeability by ASTM D2434 (Constant Head Method)

k = QL/ath

Where k = coefficient of permeability,

Q = quantity of water discharged,	Q =	1000 cm^3
L = length of sample in centimeters	L =	15.24 cm
A = cross sectional area of specimen,	A =	43.10 cm^2
t = total time for discharge, in seconds	t =	3480 sec
h = difference in head manometers,	h =	61.5 cm

k = 0.001652165 cm/sec.

k = 2.341 inch/hour

Reported To: JR Russo Surveyors Engineers

Submitted By: New England Materials Testing Lab, LLC.

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NEMT accepts no liability for work executed by others.

NEW ENGLAND MATERIALS TESTING LAB, LLC.
NEW ENGLAND REGIONAL OFFICE
72 Bissell Street Manchester, CT 06040 • Tel: 860-783-5830 • Fax: 860-783-5832

Client: JR Russo Surveyors Engineers
P. O Box 938
East Windsor, CT. 06088

Report #: 001

Lab ID: 101-21

Project: 501Talcottville Road Vernon, CT.

Client ID: TP-4

Technician: Z. A

Date: 12/27/2021

LAB PERMEABILITY TEST

Sample description: Reddish brown sand and little gravel.

Location: Onsite (501Talcottville Red Vernon, CT).

Sample depth: 30" to 36"

Method: Permeability by ASTM D2434 (Constant Head Method)

k = QL/ath

Where k = coefficient of permeability,

Q = quantity of water discharged,	Q =	1000 cm^3
L = length of sample in centimeters	L =	15.24 cm
A = cross sectional area of specimen,	A =	43.10 cm^2
t = total time for discharge, in seconds	t =	240 sec
h = difference in head manometers,	h =	61.5 cm

k = 0.023956388 cm/sec.

k = 33.953 inch/hour

Reported To: JR Russo Surveyors Engineers

Submitted By: New England Materials Testing Lab, LLC.

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Appendix 4:

DRAINAGE AREA MAPS

PRE-DEVELOPMENT DRAINAGE AREA MAP

DART HILL ROAD

TALCOTTVILLE ROAD (CT ROUTE 83)

AREA PRE (87,188 S.F.)

AREA PP (0.67± Ac)

PROPOSED LOT
I.D. 09-0007-0001E
AREA=87,120 S.F. (2.00± ACRES)

REMAINING LAND OF
N/F
501 TALCOTTVILLE ROAD LLC
501 TALCOTTVILLE ROAD
VOL 2026 PG 51
LOT 09-0007-0001D
AREA=113,818 S.F. (2.61± ACRES)

N/F
EUGENE P. & JUDITH S. VEILLETTE
786 DART HILL ROAD
VOL 1233 PG 191

N/F
THOMAS A. & LINDA M. SHIRSHAC
64 WORCESTER ROAD
VOL 266 PG 102

N/F
KAO LLC
509 TALCOTTVILLE ROAD
VOL 1802 PG 261

NRCS SOIL TYPE BOUNDARY, TYP.

NRCS SOIL TYPE HARTFORD SANDY LOAM (33B)

NRCS SOIL TYPE UDORTHENTS-URBAN LAND COMPLEX (306)

EASEMENT IN FAVOR OF PROPOSED LOT
AREA=7,789 S.F. (0.179 AC)

352.41'
N85°49'00"E

274.45'
S85°49'00"W

148.91'
N2°32'37"W

S2°39'01"W
150.88'

S88°27'10"E 200.82'
145.82'

S8°39'41"W
41.63'

S1°32'50"W
53.93'

70.00'
S88°27'10"E

215.58'
N57°48'55"W

93.33'
S57°00'38"W

45.00' ESMT

42.58' ESMT

100' WETLAND REGULATED AREA

50' FRONT YARD

50' REAR YARD

25' SIDE YARD

20' SIDE YARD

35' BUFFER YARD

DELTA=7°22'55"
R=2506.67'
L=322.95'

SMH
TF=226.15
FL=214.39 8"PVC W
FL=214.95 6"PVC S
FL=219.59 6"PVC N

SMH
TF=222.95
FL=212.35

DMH
TF=223.5
FL=214.39 6" NW
FL=214.95 15" S

6" PVC

15" RCP

8" PVC

6" PVC LATERAL

WOOD POSTS

SNET 1710
W/ LIGHT

SNET 1711

POSSIBLE HEADWALL BURIED
FL=215.0± (RECORD)

REBAR FOUND

DRILL HOLE FOUND

C.H.D. FOUND

C.H.D. FOUND

I.P. BENT FOUND

C.H.D. D.H. FOUND

8"CMP
FL=220.98

TP1

TP2

TP3

TP4

TP5

POST-DEVELOPMENT DRAINAGE AREA MAP

DART HILL ROAD

AREA CB1 (7,074 S.F.)

AREA CB2 (9,735 S.F.)

AREA CB3 (13,685 S.F.)

AREA ROOF (10,000 S.F.)

AREA PLAYGROUND (4,941 S.F.)

AREA CB4 (10,979 S.F.)

AREA BAS1 (4,930 S.F.)

AREA DIRECT (33,523 S.F.)

AREA PP (0.67± Ac)

PROPOSED LOT
I.D. 09-0007-0001E
AREA=87,120 S.F. (2.00± ACRES)

N/F
KAO LLC
509 TALCOTTVILLE ROAD
VOL 1802 PG 261

N/F
EUGENE P. &
JUDITH S. VEILLETTE
786 DART HILL ROAD
VOL 1233 PG 191

N/F
THOMAS A. & LINDA M.
SHIRSHAC
64 WORCESTER ROAD
VOL 266 PG 102

REMAINING LAND OF
N/F
501 TALCOTTVILLE ROAD LLC
501 TALCOTTVILLE ROAD
VOL 2026 PG 51
LOT 09-0007-0001D
AREA=113,818 S.F. (2.61± ACRES)

TALCOTTVILLE ROAD
(CT ROUTE 83)

SMH
TF=222.95
FL=212.35

DMH
TF=223.5
FL=214.39 6" NW
FL=214.95 15" S

SMH
TF=226.15
FL=214.39 8"PVC W
FL=214.95 6"PVC S
FL=219.59 6"PVC N

6" PVC LATERAL

8" PVC

6" PVC

DRILL HOLE FOUND

C.H.D. FOUND

I.P. BENT FOUND

C.H.D. D.H. FOUND

8"CMP
FL=220.98

100' WETLAND REGULATED AREA

REBAR FOUND

50' FRONT YARD

50' REAR YARD

50' SIDE YARD

25' SIDE YARD

35' BUFFER YARD

TP1

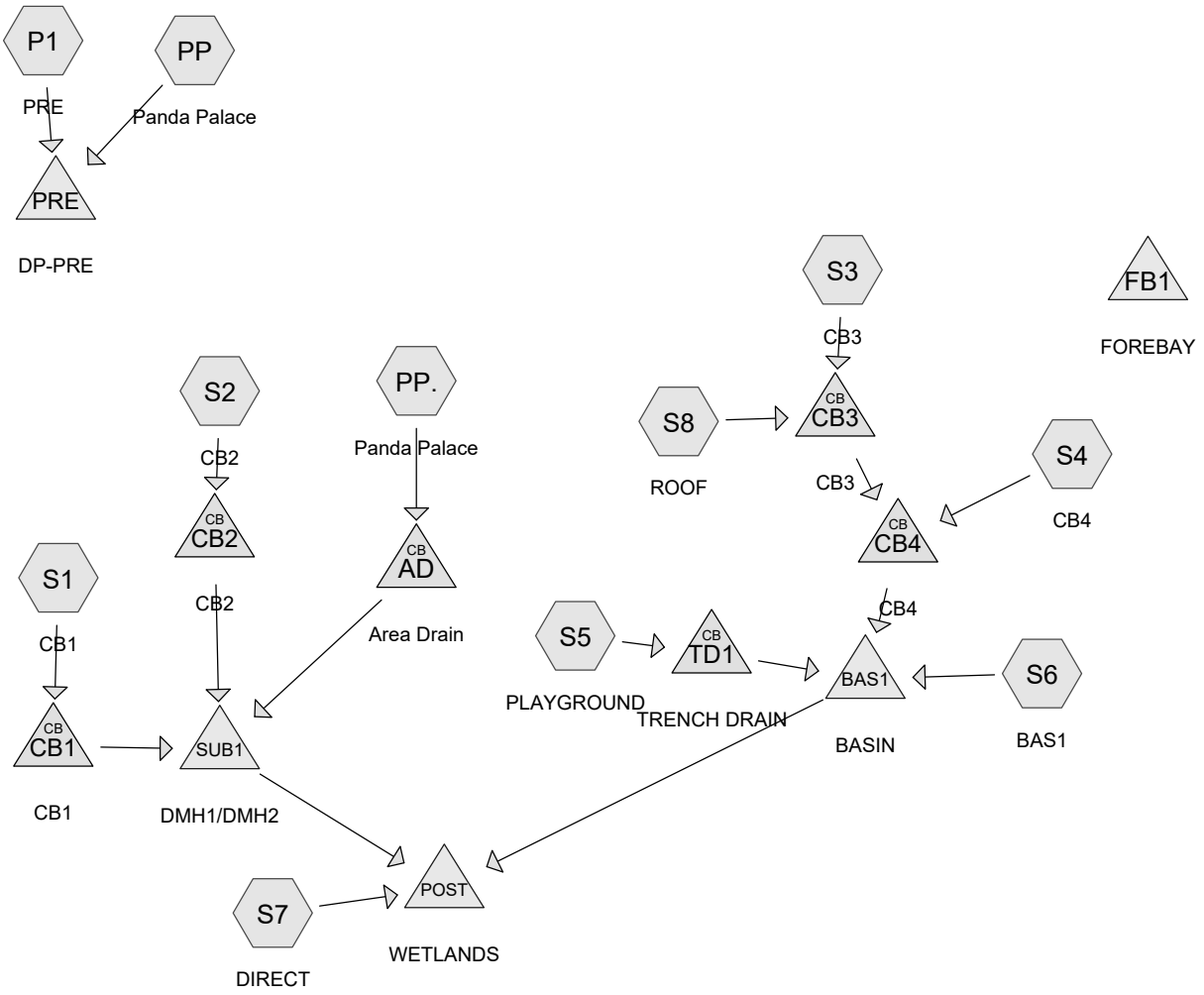
TP3

TP4

TP5

Appendix 5:

HYDROCAD ANALYSES



Subcat Reach Pond Link

Routing Diagram for 2021-083 Vernon TLE-B
Prepared by J.R. Russo & Associates LLC, Printed 3/23/2022
HydroCAD® 10.00-26 s/n 10006 © 2020 HydroCAD Software Solutions LLC

Summary for Pond AD: Area Drain

Inflow Area = 0.668 ac,100.00% Impervious, Inflow Depth > 4.74" for 10-year event
Inflow = 3.37 cfs @ 12.07 hrs, Volume= 0.264 af
Outflow = 3.37 cfs @ 12.08 hrs, Volume= 0.264 af, Atten= 0%, Lag= 0.6 min
Primary = 3.37 cfs @ 12.08 hrs, Volume= 0.264 af

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 219.86' @ 12.08 hrs
Flood Elev= 221.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.90'	**15.0" Round Culvert** L= 62.0' Ke= 0.500 Inlet / Outlet Invert= 218.90' / 218.28' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=3.37 cfs @ 12.08 hrs HW=219.86' TW=215.61' (Dynamic Tailwater)
↑**1=Culvert** (Inlet Controls 3.37 cfs @ 3.34 fps)

Summary for Pond BAS1: BASIN

Inflow Area = 1.022 ac, 66.96% Impervious, Inflow Depth > 2.90" for 10-year event
Inflow = 3.30 cfs @ 12.09 hrs, Volume= 0.247 af
Outflow = 1.31 cfs @ 12.32 hrs, Volume= 0.247 af, Atten= 60%, Lag= 13.6 min
Discarded = 0.05 cfs @ 12.32 hrs, Volume= 0.103 af
Primary = 1.26 cfs @ 12.32 hrs, Volume= 0.144 af

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 217.50' @ 12.32 hrs Surf.Area= 2,223 sf Storage= 4,200 cf
Flood Elev= 219.00' Surf.Area= 3,299 sf Storage= 8,327 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 421.2 min (1,210.8 - 789.6)

Volume	Invert	Avail.Storage	Storage Description
#1	214.00'	8,327 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
214.00	353	0	0
216.00	1,249	1,602	1,602
218.00	2,551	3,800	5,402
219.00	3,299	2,925	8,327

Device	Routing	Invert	Outlet Devices
#1	Discarded	214.00'	**0.550 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 212.00'
#2	Primary	218.50'	**10.0' long x 7.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.40 2.52 2.70 2.68 2.68 2.67 2.66 2.65 2.65

2.65 2.66 2.65 2.66 2.68 2.70 2.73 2.78

#3	Primary	212.30'	**10.0" Round Culvert** L= 28.0' Ke= 0.500 Inlet / Outlet Invert= 212.30' / 212.00' S= 0.0107 '/' Cc= 0.900 n= 0.012, Flow Area= 0.55 sf
#4	Device 3	216.60'	**8.0" Vert. Orifice/Grate** C= 0.600
#5	Device 3	218.40'	**36.0" W x 19.4" H Vert. Orifice/Grate** C= 0.600

Discarded OutFlow Max=0.05 cfs @ 12.32 hrs HW=217.50' (Free Discharge)
└**1=Exfiltration** (Controls 0.05 cfs)

Primary OutFlow Max=1.26 cfs @ 12.32 hrs HW=217.50' TW=0.00' (Dynamic Tailwater)
├**2=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)
└**3=Culvert** (Passes 1.26 cfs of 5.74 cfs potential flow)
  ├**4=Orifice/Grate** (Orifice Controls 1.26 cfs @ 3.61 fps)
  └**5=Orifice/Grate** (Controls 0.00 cfs)

Summary for Pond CB1: CB1

Inflow Area = 0.162 ac, 82.30% Impervious, Inflow Depth = 3.65" for 10-year event
Inflow = 0.70 cfs @ 12.07 hrs, Volume= 0.049 af
Outflow = 0.70 cfs @ 12.08 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.6 min
Primary = 0.70 cfs @ 12.08 hrs, Volume= 0.049 af

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 217.89' @ 12.08 hrs
Flood Elev= 221.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	217.50'	**15.0" Round Culvert** L= 107.0' Ke= 0.500 Inlet / Outlet Invert= 217.50' / 216.43' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.70 cfs @ 12.08 hrs HW=217.89' TW=215.63' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 0.70 cfs @ 2.13 fps)

Summary for Pond CB2: CB2

Inflow Area = 0.223 ac, 67.98% Impervious, Inflow Depth = 2.78" for 10-year event
Inflow = 0.76 cfs @ 12.07 hrs, Volume= 0.052 af
Outflow = 0.76 cfs @ 12.08 hrs, Volume= 0.052 af, Atten= 0%, Lag= 0.6 min
Primary = 0.76 cfs @ 12.08 hrs, Volume= 0.052 af

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 216.39' @ 12.38 hrs
Flood Elev= 221.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.00'	**15.0" Round Culvert** L= 3.0' Ke= 0.500 Inlet / Outlet Invert= 215.00' / 215.00' S= 0.0000 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.09 cfs @ 12.08 hrs HW=215.65' TW=215.65' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.09 cfs @ 0.20 fps)

Summary for Pond CB3: CB3

Inflow Area = 0.544 ac, 74.18% Impervious, Inflow Depth > 3.17" for 10-year event
Inflow = 1.91 cfs @ 12.07 hrs, Volume= 0.144 af
Outflow = 1.91 cfs @ 12.08 hrs, Volume= 0.144 af, Atten= 0%, Lag= 0.6 min
Primary = 1.91 cfs @ 12.08 hrs, Volume= 0.144 af

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 218.58' @ 12.08 hrs
Flood Elev= 221.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	217.90'	**15.0" Round Culvert** L= 63.0' Ke= 0.500 Inlet / Outlet Invert= 217.90' / 216.50' S= 0.0222 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.91 cfs @ 12.08 hrs HW=218.58' TW=217.45' (Dynamic Tailwater)
1=Culvert (Inlet Controls 1.91 cfs @ 2.81 fps)

Summary for Pond CB4: CB4

Inflow Area = 0.796 ac, 71.73% Impervious, Inflow Depth > 3.02" for 10-year event
Inflow = 2.74 cfs @ 12.08 hrs, Volume= 0.200 af
Outflow = 2.74 cfs @ 12.09 hrs, Volume= 0.200 af, Atten= 0%, Lag= 0.6 min
Primary = 2.74 cfs @ 12.09 hrs, Volume= 0.200 af

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 217.55' @ 12.28 hrs
Flood Elev= 220.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.50'	**15.0" Round Culvert** L= 16.0' Ke= 0.500 Inlet / Outlet Invert= 216.50' / 216.00' S= 0.0313 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.56 cfs @ 12.09 hrs HW=217.47' TW=217.15' (Dynamic Tailwater)
1=Culvert (Outlet Controls 2.56 cfs @ 3.43 fps)

Summary for Pond FB1: FOREBAY

[43] Hint: Has no inflow (Outflow=Zero)

Volume	Invert	Avail.Storage	Storage Description
#1	214.00'	1,060 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
214.00	50	0	0
216.00	441	491	491
217.00	696	569	1,060

Summary for Subcatchment P1: PRE

Runoff = 0.01 cfs @ 21.37 hrs, Volume= 0.004 af, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

Area (sf)	CN	Description
89,643	30	Woods, Good, HSG A
6,051	55	Woods, Good, HSG B
95,694	32	Weighted Average
95,694		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0900	0.14		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.20"
2.5	176	0.0570	1.19		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.3	276	Total			

Summary for Pond POST: WETLANDS

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 2.846 ac, 57.57% Impervious, Inflow Depth = 0.67" for 10-year event
Inflow = 1.26 cfs @ 12.32 hrs, Volume= 0.158 af
Primary = 1.26 cfs @ 12.33 hrs, Volume= 0.158 af, Atten= 0%, Lag= 0.6 min

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs

Summary for Subcatchment PP: Panda Palace

Runoff = 3.37 cfs @ 12.07 hrs, Volume= 0.264 af, Depth> 4.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

	Area (sf)	CN	Description
*	29,109	98	Impervious
	29,109		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment PP.: Panda Palace

Runoff = 3.37 cfs @ 12.07 hrs, Volume= 0.264 af, Depth> 4.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

	Area (sf)	CN	Description
*	29,109	98	Impervious
	29,109		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond PRE: DP-PRE

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 2.865 ac, 23.32% Impervious, Inflow Depth > 1.12" for 10-year event
Inflow = 3.37 cfs @ 12.07 hrs, Volume= 0.269 af
Primary = 3.37 cfs @ 12.08 hrs, Volume= 0.269 af, Atten= 0%, Lag= 0.6 min

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs

Summary for Subcatchment S1: CB1

Runoff = 0.70 cfs @ 12.07 hrs, Volume= 0.049 af, Depth= 3.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

Area (sf)	CN	Description
5,822	98	Paved parking, HSG A
1,252	39	>75% Grass cover, Good, HSG A
7,074	88	Weighted Average
1,252		17.70% Pervious Area
5,822		82.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment S2: CB2

Runoff = 0.76 cfs @ 12.07 hrs, Volume= 0.052 af, Depth= 2.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

Area (sf)	CN	Description
6,618	98	Paved parking, HSG A
3,117	39	>75% Grass cover, Good, HSG A
9,735	79	Weighted Average
3,117		32.02% Pervious Area
6,618		67.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment S3: CB3

Runoff = 0.76 cfs @ 12.08 hrs, Volume= 0.053 af, Depth= 2.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

Area (sf)	CN	Description
7,570	98	Paved parking, HSG A
3,876	39	>75% Grass cover, Good, HSG A
2,239	30	Woods, Good, HSG A
13,685	70	Weighted Average
6,115		44.68% Pervious Area
7,570		55.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment S4: CB4

Runoff = 0.83 cfs @ 12.08 hrs, Volume= 0.057 af, Depth= 2.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

Area (sf)	CN	Description
7,293	98	Paved parking, HSG A
3,515	39	>75% Grass cover, Good, HSG A
171	30	Woods, Good, HSG A
10,979	78	Weighted Average
3,686		33.57% Pervious Area
7,293		66.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment S5: PLAYGROUND

Runoff = 0.57 cfs @ 12.07 hrs, Volume= 0.045 af, Depth> 4.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

Area (sf)	CN	Description
4,941	98	Paved parking, HSG A
4,941		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment S6: BAS1

Runoff = 0.00 cfs @ 12.46 hrs, Volume= 0.002 af, Depth= 0.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

Area (sf)	CN	Description
4,912	39	>75% Grass cover, Good, HSG A
18	98	Paved parking, HSG A
4,930	39	Weighted Average
4,912		99.63% Pervious Area
18		0.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment S7: DIRECT

Runoff = 0.03 cfs @ 12.73 hrs, Volume= 0.015 af, Depth= 0.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

	Area (sf)	CN	Description
*	861	39	Disconnected Sidewalk, HSG A
	7,246	30	Woods, Good, HSG A
	4,092	55	Woods, Good, HSG B
	19,366	39	>75% Grass cover, Good, HSG A
	1,958	61	>75% Grass cover, Good, HSG B
	33,523	40	Weighted Average
	33,523		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	6	0.0200	0.78		**Sheet Flow, IM** Smooth surfaces n= 0.011 P2= 3.20"
1.8	22	0.0636	0.20		**Sheet Flow, GR** Grass: Short n= 0.150 P2= 3.20"
1.2	25	0.2400	0.35		**Sheet Flow, GR** Grass: Short n= 0.150 P2= 3.20"
1.4	20	0.1000	0.23		**Sheet Flow, GR** Grass: Short n= 0.150 P2= 3.20"
18.5	74	0.0160	0.07		**Sheet Flow, W** Woods: Light underbrush n= 0.400 P2= 3.20"
23.0	147	Total			

Summary for Subcatchment S8: ROOF

Runoff = 1.16 cfs @ 12.07 hrs, Volume= 0.091 af, Depth> 4.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.98"

Area (sf)	CN	Description
10,000	98	Roofs, HSG A
10,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond SUB1: DMH1/DMH2

[86] Warning: Oscillations may require smaller dt (severity=1057)
[80] Warning: Exceeded Pond CB2 by 0.10' @ 12.13 hrs (1.44 cfs 0.024 af)

Inflow Area =	1.054 ac,	90.49% Impervious,	Inflow Depth >	4.16" for 10-year event
Inflow =	4.83 cfs @	12.08 hrs,	Volume=	0.365 af
Outflow =	1.53 cfs @	12.38 hrs,	Volume=	0.888 af, Atten= 68%, Lag= 17.6 min
Discarded =	1.53 cfs @	12.38 hrs,	Volume=	0.888 af
Primary =	0.00 cfs @	1.00 hrs,	Volume=	0.000 af

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 216.39' @ 12.38 hrs Surf.Area= 2,264 sf Storage= 2,963 cf
Flood Elev= 218.00' Surf.Area= 2,264 sf Storage= 5,012 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Volume	Invert	Avail.Storage	Storage Description
#1A	214.50'	2,066 cf	**20.50'W x 110.42'L x 3.50'H Field A** 7,922 cf Overall - 2,756 cf Embedded = 5,166 cf x 40.0% Voids
#2A	215.00'	2,756 cf	**ADS_StormTech SC-740 +Cap** x 60 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 60 Chambers in 4 Rows
#3	215.00'	89 cf	**4.00'D x 7.12'H DMH1**-Impervious
#4	215.00'	101 cf	**4.00'D x 8.05'H DMH2**-Impervious
#5	214.80'	89 cf	**4.00'D x 7.10'H DMH3**-Impervious
#6	216.25'	74 cf	**15.0" Round OUTLET PIPE**-Impervious L= 60.0'
		5,176 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	214.50'	**15.000 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 212.50'
#2	Primary	213.20'	**10.0" Round Culvert** L= 120.0' Ke= 0.500 Inlet / Outlet Invert= 213.20' / 212.00' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.55 sf
#3	Device 2	217.60'	**4.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s) 2.3' Crest Height

Discarded OutFlow Max=1.53 cfs @ 12.38 hrs HW=216.39' (Free Discharge)
└**1=Exfiltration** (Controls 1.53 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=214.50' TW=0.00' (Dynamic Tailwater)
└**2=Culvert** (Passes 0.00 cfs of 2.39 cfs potential flow)
└**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond TD1: TRENCH DRAIN

Inflow Area = 0.113 ac,100.00% Impervious, Inflow Depth > 4.74" for 10-year event
Inflow = 0.57 cfs @ 12.07 hrs, Volume= 0.045 af
Outflow = 0.57 cfs @ 12.08 hrs, Volume= 0.045 af, Atten= 0%, Lag= 0.6 min
Primary = 0.57 cfs @ 12.08 hrs, Volume= 0.045 af

Routing by Sim-Route method, Time Span= 1.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 219.52' @ 12.08 hrs
Flood Elev= 222.35'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.90'	**6.0" Round Culvert** L= 15.0' Ke= 0.500 Inlet / Outlet Invert= 218.90' / 218.00' S= 0.0600 '/' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf

Primary OutFlow Max=0.57 cfs @ 12.08 hrs HW=219.52' TW=217.10' (Dynamic Tailwater)
1=Culvert (Inlet Controls 0.57 cfs @ 2.92 fps)

Time span=1.00-72.00 hrs, dt=0.01 hrs, 7101 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Pond AD: Area Drain Peak Elev=219.62' Inflow=2.12 cfs 0.163 af
15.0" Round Culvert n=0.012 L=62.0' S=0.0100 '/' Outflow=2.12 cfs 0.163 af

Pond BAS1: BASIN Peak Elev=216.86' Storage=2,918 cf Inflow=1.73 cfs 0.131 af
Discarded=0.04 cfs 0.095 af Primary=0.22 cfs 0.036 af Outflow=0.26 cfs 0.131 af

Pond CB1: CB1 Peak Elev=217.79' Inflow=0.39 cfs 0.027 af
15.0" Round Culvert n=0.012 L=107.0' S=0.0100 '/' Outflow=0.39 cfs 0.027 af

Pond CB2: CB2 Peak Elev=215.39' Inflow=0.35 cfs 0.024 af
15.0" Round Culvert n=0.012 L=3.0' S=0.0000 '/' Outflow=0.35 cfs 0.024 af

Pond CB3: CB3 Peak Elev=218.37' Inflow=1.00 cfs 0.077 af
15.0" Round Culvert n=0.012 L=63.0' S=0.0222 '/' Outflow=1.00 cfs 0.077 af

Pond CB4: CB4 Peak Elev=217.06' Inflow=1.37 cfs 0.103 af
15.0" Round Culvert n=0.012 L=16.0' S=0.0313 '/' Outflow=1.37 cfs 0.103 af

Pond FB1: FOREBAY Peak Elev=0.00' Storage=0 cf

SubcatchmentP1: PRE Runoff Area=95,694 sf 0.00% Impervious Runoff Depth=0.00"
Flow Length=276' Tc=14.3 min CN=32 Runoff=0.00 cfs 0.000 af

Pond POST: WETLANDS Inflow=0.22 cfs 0.036 af
Primary=0.22 cfs 0.036 af

SubcatchmentPP: Panda Palace Runoff Area=29,109 sf 100.00% Impervious Runoff Depth=2.93"
Tc=5.0 min CN=98 Runoff=2.12 cfs 0.163 af

SubcatchmentPP.: Panda Palace Runoff Area=29,109 sf 100.00% Impervious Runoff Depth=2.93"
Tc=5.0 min CN=98 Runoff=2.12 cfs 0.163 af

Pond PRE: DP-PRE Inflow=2.12 cfs 0.163 af
Primary=2.12 cfs 0.163 af

SubcatchmentS1: CB1 Runoff Area=7,074 sf 82.30% Impervious Runoff Depth=1.96"
Tc=5.0 min CN=88 Runoff=0.39 cfs 0.027 af

SubcatchmentS2: CB2 Runoff Area=9,735 sf 67.98% Impervious Runoff Depth=1.31"
Tc=5.0 min CN=79 Runoff=0.35 cfs 0.024 af

SubcatchmentS3: CB3 Runoff Area=13,685 sf 55.32% Impervious Runoff Depth=0.80"
Tc=5.0 min CN=70 Runoff=0.27 cfs 0.021 af

SubcatchmentS4: CB4 Runoff Area=10,979 sf 66.43% Impervious Runoff Depth=1.24"
Tc=5.0 min CN=78 Runoff=0.37 cfs 0.026 af

SubcatchmentS5: PLAYGROUND Runoff Area=4,941 sf 100.00% Impervious Runoff Depth=2.93"
Tc=5.0 min CN=98 Runoff=0.36 cfs 0.028 af

SubcatchmentS6: BAS1 Runoff Area=4,930 sf 0.37% Impervious Runoff Depth=0.00"
Tc=5.0 min CN=39 Runoff=0.00 cfs 0.000 af

SubcatchmentS7: DIRECT Runoff Area=33,523 sf 0.00% Impervious Runoff Depth=0.00"
Flow Length=147' Tc=23.0 min CN=40 Runoff=0.00 cfs 0.000 af

SubcatchmentS8: ROOF Runoff Area=10,000 sf 100.00% Impervious Runoff Depth=2.93"
Tc=5.0 min CN=98 Runoff=0.73 cfs 0.056 af

Pond SUB1: DMH1/DMH2 Peak Elev=215.38' Storage=1,174 cf Inflow=2.86 cfs 0.214 af
Discarded=1.13 cfs 0.807 af Primary=0.00 cfs 0.000 af Outflow=1.13 cfs 0.807 af

Pond TD1: TRENCH DRAIN Peak Elev=219.30' Inflow=0.36 cfs 0.028 af
6.0" Round Culvert n=0.012 L=15.0' S=0.0600 '/' Outflow=0.36 cfs 0.028 af

Total Runoff Area = 5.711 ac Runoff Volume = 0.508 af Average Runoff Depth = 1.07"
59.61% Pervious = 3.404 ac 40.39% Impervious = 2.307 ac

Time span=1.00-72.00 hrs, dt=0.01 hrs, 7101 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Pond AD: Area Drain Peak Elev=219.86' Inflow=3.37 cfs 0.264 af
15.0" Round Culvert n=0.012 L=62.0' S=0.0100 '/' Outflow=3.37 cfs 0.264 af

Pond BAS1: BASIN Peak Elev=217.50' Storage=4,200 cf Inflow=3.30 cfs 0.247 af
Discarded=0.05 cfs 0.103 af Primary=1.26 cfs 0.144 af Outflow=1.31 cfs 0.247 af

Pond CB1: CB1 Peak Elev=217.89' Inflow=0.70 cfs 0.049 af
15.0" Round Culvert n=0.012 L=107.0' S=0.0100 '/' Outflow=0.70 cfs 0.049 af

Pond CB2: CB2 Peak Elev=216.39' Inflow=0.76 cfs 0.052 af
15.0" Round Culvert n=0.012 L=3.0' S=0.0000 '/' Outflow=0.76 cfs 0.052 af

Pond CB3: CB3 Peak Elev=218.58' Inflow=1.91 cfs 0.144 af
15.0" Round Culvert n=0.012 L=63.0' S=0.0222 '/' Outflow=1.91 cfs 0.144 af

Pond CB4: CB4 Peak Elev=217.55' Inflow=2.74 cfs 0.200 af
15.0" Round Culvert n=0.012 L=16.0' S=0.0313 '/' Outflow=2.74 cfs 0.200 af

Pond FB1: FOREBAY Peak Elev=0.00' Storage=0 cf

SubcatchmentP1: PRE Runoff Area=95,694 sf 0.00% Impervious Runoff Depth=0.02"
Flow Length=276' Tc=14.3 min CN=32 Runoff=0.01 cfs 0.004 af

Pond POST: WETLANDS Inflow=1.26 cfs 0.158 af
Primary=1.26 cfs 0.158 af

SubcatchmentPP: Panda Palace Runoff Area=29,109 sf 100.00% Impervious Runoff Depth>4.74"
Tc=5.0 min CN=98 Runoff=3.37 cfs 0.264 af

SubcatchmentPP.: Panda Palace Runoff Area=29,109 sf 100.00% Impervious Runoff Depth>4.74"
Tc=5.0 min CN=98 Runoff=3.37 cfs 0.264 af

Pond PRE: DP-PRE Inflow=3.37 cfs 0.269 af
Primary=3.37 cfs 0.269 af

SubcatchmentS1: CB1 Runoff Area=7,074 sf 82.30% Impervious Runoff Depth=3.65"
Tc=5.0 min CN=88 Runoff=0.70 cfs 0.049 af

SubcatchmentS2: CB2 Runoff Area=9,735 sf 67.98% Impervious Runoff Depth=2.78"
Tc=5.0 min CN=79 Runoff=0.76 cfs 0.052 af

SubcatchmentS3: CB3 Runoff Area=13,685 sf 55.32% Impervious Runoff Depth=2.02"
Tc=5.0 min CN=70 Runoff=0.76 cfs 0.053 af

SubcatchmentS4: CB4 Runoff Area=10,979 sf 66.43% Impervious Runoff Depth=2.69"
Tc=5.0 min CN=78 Runoff=0.83 cfs 0.057 af

SubcatchmentS5: PLAYGROUND Runoff Area=4,941 sf 100.00% Impervious Runoff Depth>4.74"
Tc=5.0 min CN=98 Runoff=0.57 cfs 0.045 af

SubcatchmentS6: BAS1 Runoff Area=4,930 sf 0.37% Impervious Runoff Depth=0.20"
Tc=5.0 min CN=39 Runoff=0.00 cfs 0.002 af

SubcatchmentS7: DIRECT Runoff Area=33,523 sf 0.00% Impervious Runoff Depth=0.23"
Flow Length=147' Tc=23.0 min CN=40 Runoff=0.03 cfs 0.015 af

SubcatchmentS8: ROOF Runoff Area=10,000 sf 100.00% Impervious Runoff Depth>4.74"
Tc=5.0 min CN=98 Runoff=1.16 cfs 0.091 af

Pond SUB1: DMH1/DMH2 Peak Elev=216.39' Storage=2,963 cf Inflow=4.83 cfs 0.365 af
Discarded=1.53 cfs 0.888 af Primary=0.00 cfs 0.000 af Outflow=1.53 cfs 0.888 af

Pond TD1: TRENCH DRAIN Peak Elev=219.52' Inflow=0.57 cfs 0.045 af
6.0" Round Culvert n=0.012 L=15.0' S=0.0600 '/' Outflow=0.57 cfs 0.045 af

Total Runoff Area = 5.711 ac Runoff Volume = 0.896 af Average Runoff Depth = 1.88"
59.61% Pervious = 3.404 ac 40.39% Impervious = 2.307 ac

Time span=1.00-72.00 hrs, dt=0.01 hrs, 7101 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Pond AD: Area Drain Peak Elev=220.01' Inflow=4.15 cfs 0.327 af
15.0" Round Culvert n=0.012 L=62.0' S=0.0100 '/' Outflow=4.15 cfs 0.327 af

Pond BAS1: BASIN Peak Elev=217.92' Storage=5,201 cf Inflow=4.36 cfs 0.326 af
Discarded=0.06 cfs 0.107 af Primary=1.67 cfs 0.219 af Outflow=1.73 cfs 0.326 af

Pond CB1: CB1 Peak Elev=217.95' Inflow=0.90 cfs 0.064 af
15.0" Round Culvert n=0.012 L=107.0' S=0.0100 '/' Outflow=0.90 cfs 0.064 af

Pond CB2: CB2 Peak Elev=217.16' Inflow=1.03 cfs 0.071 af
15.0" Round Culvert n=0.012 L=3.0' S=0.0000 '/' Outflow=1.03 cfs 0.071 af

Pond CB3: CB3 Peak Elev=218.70' Inflow=2.53 cfs 0.188 af
15.0" Round Culvert n=0.012 L=63.0' S=0.0222 '/' Outflow=2.53 cfs 0.188 af

Pond CB4: CB4 Peak Elev=217.98' Inflow=3.65 cfs 0.266 af
15.0" Round Culvert n=0.012 L=16.0' S=0.0313 '/' Outflow=3.65 cfs 0.266 af

Pond FB1: FOREBAY Peak Elev=0.00' Storage=0 cf

SubcatchmentP1: PRE Runoff Area=95,694 sf 0.00% Impervious Runoff Depth=0.15"
Flow Length=276' Tc=14.3 min CN=32 Runoff=0.04 cfs 0.028 af

Pond POST: WETLANDS Inflow=1.77 cfs 0.254 af
Primary=1.77 cfs 0.254 af

SubcatchmentPP: Panda Palace Runoff Area=29,109 sf 100.00% Impervious Runoff Depth>5.88"
Tc=5.0 min CN=98 Runoff=4.15 cfs 0.327 af

SubcatchmentPP.: Panda Palace Runoff Area=29,109 sf 100.00% Impervious Runoff Depth>5.88"
Tc=5.0 min CN=98 Runoff=4.15 cfs 0.327 af

Pond PRE: DP-PRE Inflow=4.15 cfs 0.355 af
Primary=4.15 cfs 0.355 af

SubcatchmentS1: CB1 Runoff Area=7,074 sf 82.30% Impervious Runoff Depth=4.74"
Tc=5.0 min CN=88 Runoff=0.90 cfs 0.064 af

SubcatchmentS2: CB2 Runoff Area=9,735 sf 67.98% Impervious Runoff Depth=3.79"
Tc=5.0 min CN=79 Runoff=1.03 cfs 0.071 af

SubcatchmentS3: CB3 Runoff Area=13,685 sf 55.32% Impervious Runoff Depth=2.90"
Tc=5.0 min CN=70 Runoff=1.10 cfs 0.076 af

SubcatchmentS4: CB4 Runoff Area=10,979 sf 66.43% Impervious Runoff Depth=3.69"
Tc=5.0 min CN=78 Runoff=1.13 cfs 0.077 af

SubcatchmentS5: PLAYGROUND Runoff Area=4,941 sf 100.00% Impervious Runoff Depth>5.88"
Tc=5.0 min CN=98 Runoff=0.70 cfs 0.056 af

SubcatchmentS6: BAS1 Runoff Area=4,930 sf 0.37% Impervious Runoff Depth=0.48"
Tc=5.0 min CN=39 Runoff=0.02 cfs 0.005 af

SubcatchmentS7: DIRECT Runoff Area=33,523 sf 0.00% Impervious Runoff Depth=0.54"
Flow Length=147' Tc=23.0 min CN=40 Runoff=0.15 cfs 0.034 af

SubcatchmentS8: ROOF Runoff Area=10,000 sf 100.00% Impervious Runoff Depth>5.88"
Tc=5.0 min CN=98 Runoff=1.43 cfs 0.113 af

Pond SUB1: DMH1/DMH2 Peak Elev=217.16' Storage=4,155 cf Inflow=6.08 cfs 0.462 af
Discarded=1.83 cfs 0.941 af Primary=0.00 cfs 0.000 af Outflow=1.83 cfs 0.941 af

Pond TD1: TRENCH DRAIN Peak Elev=219.71' Inflow=0.70 cfs 0.056 af
6.0" Round Culvert n=0.012 L=15.0' S=0.0600 '/' Outflow=0.70 cfs 0.056 af

Total Runoff Area = 5.711 ac Runoff Volume = 1.178 af Average Runoff Depth = 2.47"
59.61% Pervious = 3.404 ac 40.39% Impervious = 2.307 ac

Time span=1.00-72.00 hrs, dt=0.01 hrs, 7101 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Pond AD: Area Drain Peak Elev=220.34' Inflow=5.35 cfs 0.425 af
15.0" Round Culvert n=0.012 L=62.0' S=0.0100 '/' Outflow=5.35 cfs 0.425 af

Pond BAS1: BASIN Peak Elev=218.48' Storage=6,719 cf Inflow=6.08 cfs 0.453 af
Discarded=0.07 cfs 0.112 af Primary=2.32 cfs 0.341 af Outflow=2.38 cfs 0.453 af

Pond CB1: CB1 Peak Elev=218.13' Inflow=1.21 cfs 0.087 af
15.0" Round Culvert n=0.012 L=107.0' S=0.0100 '/' Outflow=1.21 cfs 0.087 af

Pond CB2: CB2 Peak Elev=217.97' Inflow=1.45 cfs 0.100 af
15.0" Round Culvert n=0.012 L=3.0' S=0.0000 '/' Outflow=1.45 cfs 0.100 af

Pond CB3: CB3 Peak Elev=219.13' Inflow=3.50 cfs 0.260 af
15.0" Round Culvert n=0.012 L=63.0' S=0.0222 '/' Outflow=3.50 cfs 0.260 af

Pond CB4: CB4 Peak Elev=218.73' Inflow=5.09 cfs 0.371 af
15.0" Round Culvert n=0.012 L=16.0' S=0.0313 '/' Outflow=5.09 cfs 0.371 af

Pond FB1: FOREBAY Peak Elev=0.00' Storage=0 cf

SubcatchmentP1: PRE Runoff Area=95,694 sf 0.00% Impervious Runoff Depth=0.53"
Flow Length=276' Tc=14.3 min CN=32 Runoff=0.38 cfs 0.096 af

Pond POST: WETLANDS Inflow=4.93 cfs 0.451 af
Primary=4.93 cfs 0.451 af

SubcatchmentPP: Panda Palace Runoff Area=29,109 sf 100.00% Impervious Runoff Depth>7.63"
Tc=5.0 min CN=98 Runoff=5.35 cfs 0.425 af

SubcatchmentPP.: Panda Palace Runoff Area=29,109 sf 100.00% Impervious Runoff Depth>7.63"
Tc=5.0 min CN=98 Runoff=5.35 cfs 0.425 af

Pond PRE: DP-PRE Inflow=5.35 cfs 0.521 af
Primary=5.35 cfs 0.521 af

SubcatchmentS1: CB1 Runoff Area=7,074 sf 82.30% Impervious Runoff Depth=6.44"
Tc=5.0 min CN=88 Runoff=1.21 cfs 0.087 af

SubcatchmentS2: CB2 Runoff Area=9,735 sf 67.98% Impervious Runoff Depth=5.39"
Tc=5.0 min CN=79 Runoff=1.45 cfs 0.100 af

SubcatchmentS3: CB3 Runoff Area=13,685 sf 55.32% Impervious Runoff Depth=4.35"
Tc=5.0 min CN=70 Runoff=1.66 cfs 0.114 af

SubcatchmentS4: CB4 Runoff Area=10,979 sf 66.43% Impervious Runoff Depth=5.27"
Tc=5.0 min CN=78 Runoff=1.60 cfs 0.111 af

SubcatchmentS5: PLAYGROUND Runoff Area=4,941 sf 100.00% Impervious Runoff Depth>7.63"
Tc=5.0 min CN=98 Runoff=0.91 cfs 0.072 af

SubcatchmentS6: BAS1 Runoff Area=4,930 sf 0.37% Impervious Runoff Depth=1.10"
Tc=5.0 min CN=39 Runoff=0.10 cfs 0.010 af

SubcatchmentS7: DIRECT Runoff Area=33,523 sf 0.00% Impervious Runoff Depth=1.19"
Flow Length=147' Tc=23.0 min CN=40 Runoff=0.48 cfs 0.077 af

SubcatchmentS8: ROOF Runoff Area=10,000 sf 100.00% Impervious Runoff Depth>7.63"
Tc=5.0 min CN=98 Runoff=1.84 cfs 0.146 af

Pond SUB1: DMH1/DMH2 Peak Elev=217.95' Storage=4,966 cf Inflow=8.00 cfs 0.612 af
Discarded=2.14 cfs 1.002 af Primary=2.73 cfs 0.033 af Outflow=4.87 cfs 1.035 af

Pond TD1: TRENCH DRAIN Peak Elev=220.07' Inflow=0.91 cfs 0.072 af
6.0" Round Culvert n=0.012 L=15.0' S=0.0600 '/' Outflow=0.91 cfs 0.072 af

Total Runoff Area = 5.711 ac Runoff Volume = 1.663 af Average Runoff Depth = 3.49"
59.61% Pervious = 3.404 ac 40.39% Impervious = 2.307 ac

Appendix 6:

MISCELLANEOUS CALCULATIONS

J.R. RUSSO & ASSOCIATES, LLC
Professional Engineers & Surveyors
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1 Shoham Rd. • East Windsor, CT 06088
CONN (860) 623-0569 • MASS (413) 785-1158
www.jrrusso.com

JOB 2021-083
SHEET NO. 1 OF 1
CALCULATED BY CJC DATE 3-17-2022
CHECKED BY DATE
SCALE

Water Quality Volume (WQV) Calculations

$WQV = (1'')RA/12$

$R = 0.05 + 0.009I$

I = percent impervious coverage
R = volumetric runoff coefficient
A = contributing area

① Basin: $A = 44\,535$ s.f.

$I = \frac{29{,}822 \text{ s.f. impervious}}{44{,}535 \text{ s.f. total}} = 66.96\%$

$R = 0.05 + 0.009(66.96) = 0.653$

$WQV = (1'')(0.653)(44{,}535)/12 = \boxed{2{,}422 \text{ c.f.}}$

Forebay = 25%(WQV) = 0.25 (2422) = **606 c.f.**

② Subsurface Chambers: $A = 45{,}918$ s.f.

$I = \frac{41{,}549 \text{ s.f. impervious}}{45{,}918 \text{ s.f. total}} = 90.49\%$

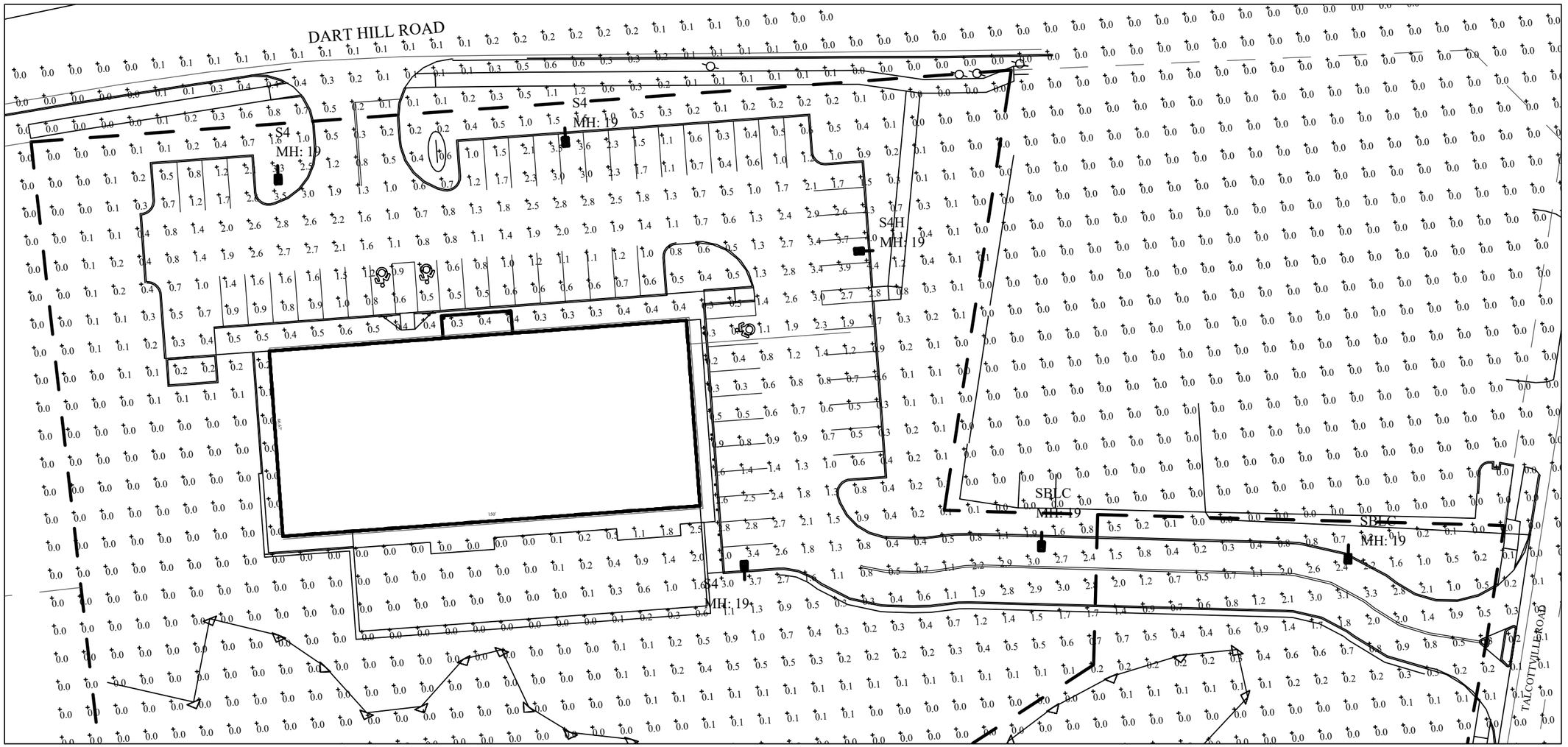
$R = 0.05 + 0.009(90.49) = 0.864$

$WQV = (1'')(0.864)(45918)/12 = \boxed{3{,}308 \text{ cf.}}$

WQV Check:

Basin Volume below outlet = 2,469 c.f.
Forebay Volume = 1,060 c.f.
Subsurface volume below outlet = 4,635 c.f.

Order Free NEBS CUSTOM printing service 1-800-898-6327 NEBS, Inc. Groton, MA 01471 www.nebs.com
Ref. No: G 355919138



Filename: 501 Talcottville Road Site Lighting - Vernon - REV 1 ALT 1.AGI

Luminaire Schedule									
Symbol	Qty	Label	Arrangement	Luminaire Lumens	Luminaire Watts	LLF	BUG Rating	Mounting Height	Description
	2	SBLC	Single	7293	70	0.900	B1-U0-G2	19	Lithonia DSX1 LED P2 40K BLC MVOLT SPA DBLXD - SSS 18 4C DM19A DBLXD 18FT POLE on 1FT BASE
	3	S4	Single	12574	102	0.900	B2-U0-G3	19	Lithonia DSX1 LED P3 40K TFTM MVOLT SPA DBLXD - SSS 18 4C DM19A DBLXD 18FT POLE on 1FT BASE
	1	S4H	Single	11312	125	0.900	B2-U0-G2	19	Lithonia DSX1 LED P4 40K TFTM MVOLT SPA HS DBLXD - SSS 18 4C DM19AS DBLXD 18FT POLE on 1FT BASE

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
SITE	Illuminance	Fc	0.35	4.4	0.0	N.A.	N.A.
NEW DRIVEWAY	Illuminance	Fc	1.37	3.3	0.2	6.85	16.50
PARKING	Illuminance	Fc	1.42	4.4	0.2	7.10	22.00

Greg Loda
Lighting Affiliates
1208 Cromwell Ave
Rocky Hill, CT 06067

REV. 1 3–28–21 LIGHTING ALONG NEW DRIVEWAY

PHOTOMETRIC PLAN

The Learning Experience

501 Talcottville Road
Vernon, Connecticut

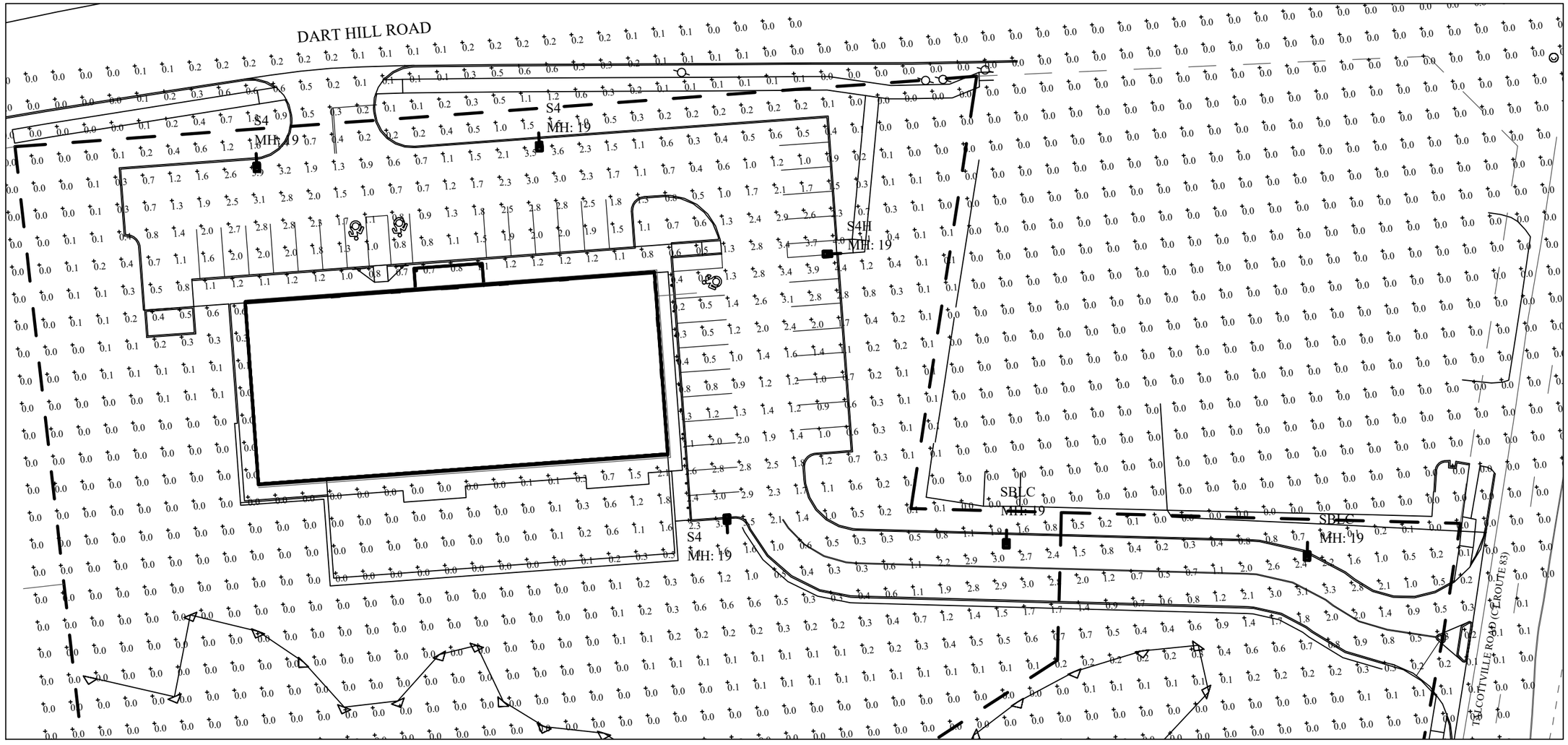
RUSSO
SURVEYORS • ENGINEERS
SERVING CT & MA
J.R. Russo & Associates, LLC
1 Shoham Rd East Windsor CT 06088 • CT 860.623.0569 • MA 413.785.1158
www.jrrusso.com • info@jrrusso.com

DATE
3–01–22

SCALE
1"=40'

JOB NUMBER
2021–083

SHEET
PH–1 (ALTERNATIVE 1)



Filename: 501 Talcottville Road Site Lighting - Vernon - REV 1 ALT 2.AGI

Luminaire Schedule									
Symbol	Qty	Label	Arrangement	Luminaire Lumens	Luminaire Watts	LLF	BUG Rating	Mounting Height	Description
	2	SBLC	Single	7293	70	0.900	B1-U0-G2	19	Lithonia DSX1 LED P2 40K BLC MVOLT SPA DBLXD - SSS 18 4C DM19A DBLXD 18FT POLE on 1FT BASE
	3	S4	Single	12574	102	0.900	B2-U0-G3	19	Lithonia DSX1 LED P3 40K TFTM MVOLT SPA DBLXD - SSS 18 4C DM19A DBLXD 18FT POLE on 1FT BASE
	1	S4H	Single	11312	125	0.900	B2-U0-G3	19	Lithonia DSX1 LED P4 40K TFTM MVOLT SPA HS DBLXD - SSS 18 4C DM19AS DBLXD 18FT POLE on 1FT BASE

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
SITE	Illuminance	Fc	0.34	4.4	0.0	N.A.	N.A.
NEW DRIVEWAY	Illuminance	Fc	1.32	3.3	0.2	6.60	16.50
PARKING	Illuminance	Fc	1.59	4.4	0.2	7.95	22.00

Greg Loda
Lighting Affiliates
1208 Cromwell Ave
Rocky Hill, CT 06067

PHOTOMETRIC PLAN

The Learning Experience

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Vernon, Connecticut

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DATE
3-28-22

SCALE
1"=40'

JOB NUMBER
2021-083

SHEET
PH-1 (ALTERNATIVE 2)

1. CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE CONTRACTORS BEST SKILL AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE AND HAVE CONTROL OVER CONSTRUCTION MEANS, METHODS TECHNIQUES, SEQUENCE, AND JOB SITE SAFETY.

2. GC MUST PROVIDE & INSTALL ALL PRODUCTS PER PLANS. ONLY SUBSTITUTED PRODUCTS NEED TO BE SUBMITTED TO THE ARCHITECT FOR APPROVAL. UNAPPROVED SUBSTITUTIONS WILL BE REPLACED AT THE EXPENSE OF THE GC.

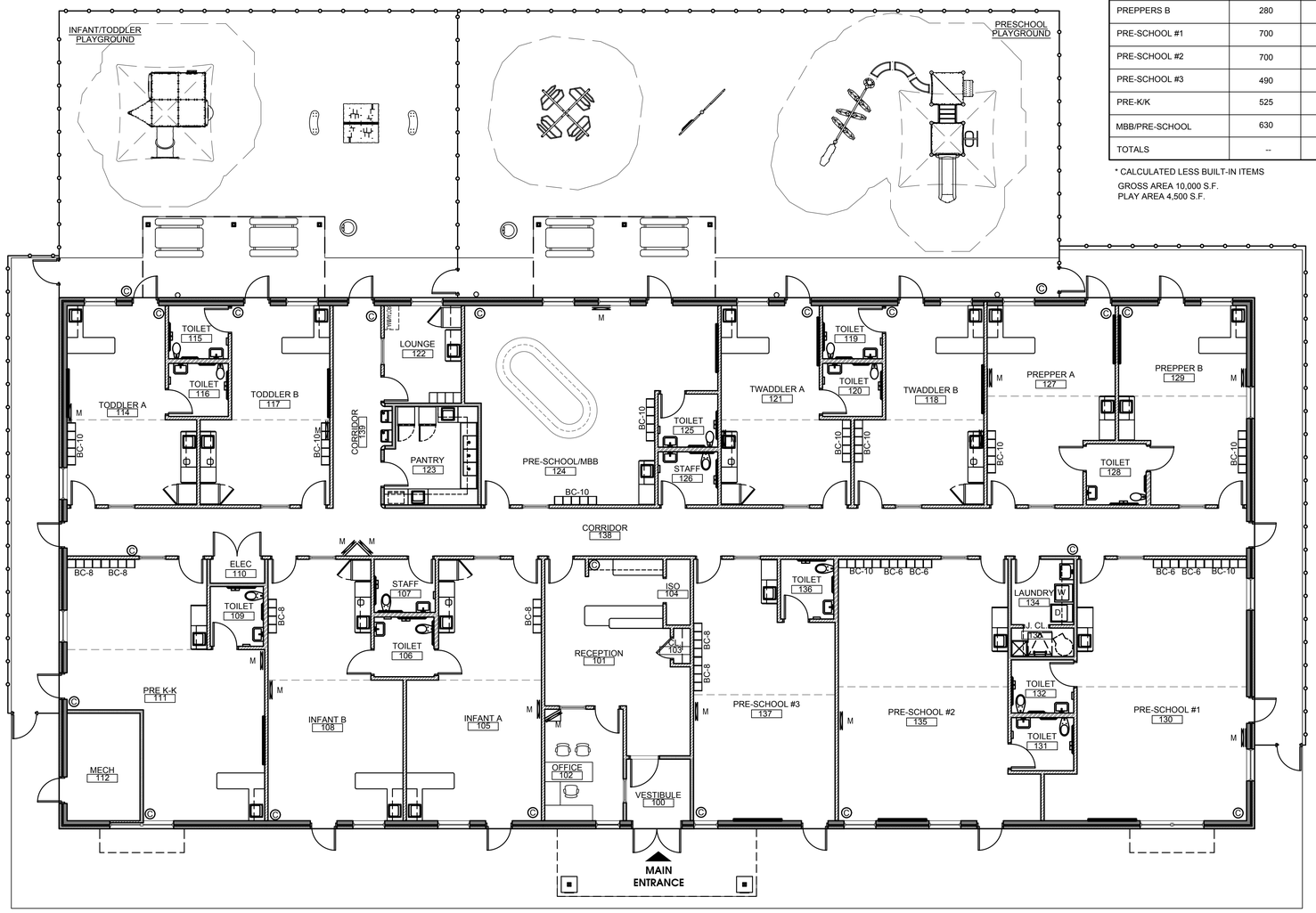
3. VERBAL REPRESENTATION HAS NO VALUE AND ALL REQUESTS TO CHANGE ANY PRODUCTS OR SPECIFICATIONS PER PLANS, MUST BE SUBMITTED IN WRITING TO THE ARCHITECT & TLE FOR APPROVAL.

LICENSING CALCULATIONS
Learning Experience, Vernon, CONNECTICUT

ROOM	STATE REQUIRED S.F.(40 S.F. PER CHILD)	NET* S.F.	ACTUAL S.F.	RATIO CHILD PER S.F.	# OF CHILDREN	# OF TEACHERS	TEACHER RATIO	AGE GROUP
INFANTS A	440	440	494	1/55	8	2	1/4	6 WK-12 MO.
INFANTS B	440	440	494	1/55	8	2	1/4	12 MO.-18 MO.
TODDLERS A	280	287	350	1/35	8	2	1/4	18-24 MO.
TODDLERS B	280	287	350	1/35	8	2	1/4	18-24 MO.
TWADDLERS A	280	287	350	1/35	8	2	1/4	24-36 MO.
TWADDLERS B	280	287	350	1/35	8	2	1/4	24-36 MO.
PREPPERS A	280	312	369	1/35	8	2	1/4	24-36 MO.
PREPPERS B	280	312	369	1/35	8	2	1/4	24-36 MO.
PRE-SCHOOL #1	700	701	722	1/35	20	2	1/10	3-5 YRS.
PRE-SCHOOL #2	700	701	722	1/35	20	2	1/10	3-5 YRS.
PRE-SCHOOL #3	490	504	525	1/35	14	2	1/10	3-5 YRS.
PRE-K/K	525	541	598	1/35	15	2	1/10	3-5 YRS.
MBB/PRE-SCHOOL	630	631	652	1/35	18	2	1/10	VARIES
TOTALS	--	--	--	--	151	26	--	--
					+2 ADMIN. STAFF			
					TOTAL	179		

* CALCULATED LESS BUILT-IN ITEMS

GROSS AREA 10,000 S.F.
PLAY AREA 4,500 S.F.



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

Jarmel Kizel
ARCHITECTS AND ENGINEERS INC.
42 OKNER PARKWAY
LIVINGSTON, NEW JERSEY 07039
TEL: 973-994-9669
FAX: 973-994-4069
www.jarmelkizel.com
Architecture
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Interior Design
Implementation Services

THE LEARNING EXPERIENCE
ACADEMY OF EARLY EDUCATION
501 TALCOTTVILLE ROAD
VERNON, CONNECTICUT

ISSUE

NO.	DATE	DESCRIPTION	INT.

REVISION

NO.	DATE	DESCRIPTION	INT.

PROFESSIONAL CERTIFICATION

MATTHEW B. JARMEL, AIA, MBA
CT. LICENSE NUMBER: ARI-0011415

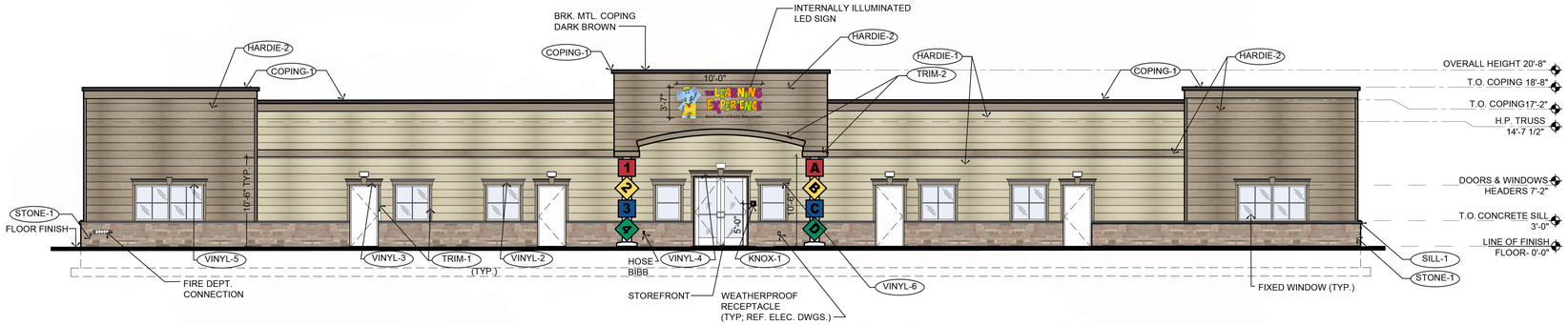
Project Number:	Scale:
TLECT21-041	1/8"=1'-0"
Drawn By: CS	Approved By: MBJ

Drawing Name:

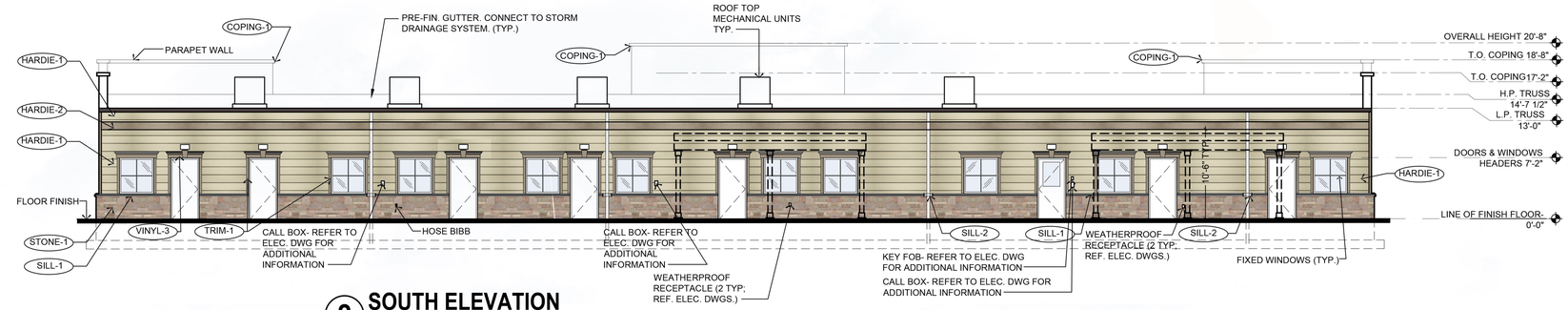
PROPOSED FLOOR PLAN

Drawing Number:

SA-1.1



1 NORTH ELEVATION
SCALE: 1/8"=1'-0"



2 SOUTH ELEVATION
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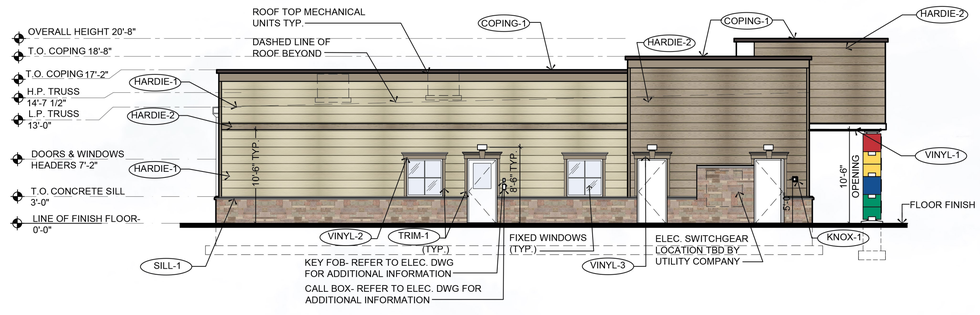
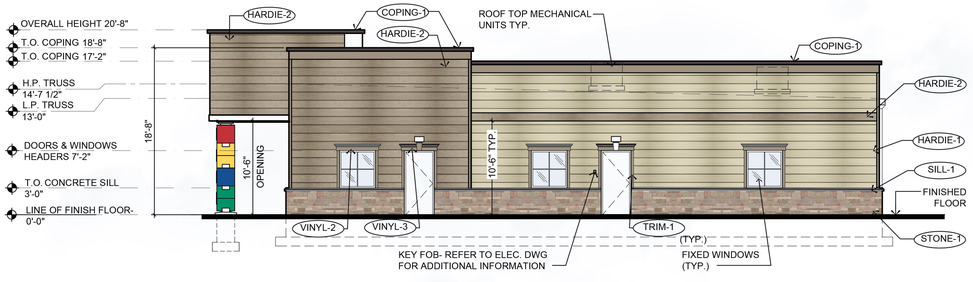


3 EAST ELEVATION
SCALE: 1/8"=1'-0"



4 WEST ELEVATION
SCALE: 1/8"=1'-0"

1. CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE CONTRACTOR'S BEST SKILL AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE AND HAVE CONTROL OVER CONSTRUCTION MEANS, METHODS TECHNIQUES, SEQUENCE, AND JOB SITE SAFETY.

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EXTERIOR MATERIAL SCHEDULE

LABEL	MANUFACTURER	SIZE / TYPE	FINISH / COLOR
STOREFRONT	KAWNEER	TRIFAB 451T / 350 PER DOOR SCHEDULE	BONE WHITE
DOOR	-	PER DOOR SCHEDULE	FACTORY PRIMED
FIXED WINDOW	PLY GEM	SILVER LINE V1 SERIES PER WINDOW SCHEDULE	WHITE
STONE-1	BUECHEL STONE CORP.	5" FULL DEPTH STONE	CHILTON TAILORED BLEND
SILL-1	MODERN PRECAST	3 3/4"Hx6"W W/ 2" FLAT W/ 1/4" DRIP EDGE	REGULAR (LIGHT GREY)
SILL-2	MODERN PRECAST	CUSTOM SILL 3 3/4"Hx4"W W/ 2" FLAT REF. DTL. 6/A-032	REGULAR (LIGHT GREY)
HARDIE-1	JAMES HARDIE	WIDTH: 8.25"	COLOR: NAVAJO BEIGE
HARDIE-2	JAMES HARDIE	WIDTH: 8.25"	COLOR: KHAKI BROWN
TRIM-1	JAMES HARDIE	5/4 M3 SMOOTH TRIM BOARD WIDTH: 3.5"	COLOR: KHAKI BROWN
TRIM-2	JAMES HARDIE	5/4 M3 SMOOTH TRIM BOARD WIDTH: 11.25"	COLOR: KHAKI BROWN
VINYL-1	ROYAL BUILDING PRODUCTS	COLORSCAPES TRIPLE 4 PERFORATED SOFFIT NOM. THICKNESS 0.042"	WHITE (REF. NOTE 2 BELOW)
VINYL-2	FYPON	WINDOW CROSSHEAD WIDTH 56", HEIGHT 9"	PAINT TO MATCH HARDIE-2 PRODUCT: WCH56X9
VINYL-3	FYPON	DOOR CROSSHEAD WIDTH 48", HEIGHT 9"	PAINT TO MATCH HARDIE-2 PRODUCT: WCH48X9
VINYL-4	FYPON	DOOR CROSSHEAD WIDTH 84", HEIGHT 9"	PAINT TO MATCH HARDIE-2 PRODUCT: WCH84X9
VINYL-5	FYPON	WINDOW CROSSHEAD WIDTH 103", HEIGHT 9"	PAINT TO MATCH HARDIE-2 PRODUCT: WCH103X9
VINYL-6	FYPON	WINDOW CROSSHEAD WIDTH 44", HEIGHT 9"	PAINT TO MATCH HARDIE-2 PRODUCT: WCH44X9
COPING-1	FABRAL (OR EQUAL)	BREAK METAL	DARK BRONZE
KNOX-1	KNOX BOX	3200 SERIES W/ RECESSED MOUNT FLANGE, HINGE DOOR, & TAMPER SWITCH	DARK BRONZE (REF. NOTE 2 BELOW)

FINISH SCHEDULE NOTES:
1. G.C. SHALL VERIFY KNOX BOX MODEL(S) AND LOCATION(S) WITH AUTHORITY HAVING JURISDICTION PRIOR TO ORDERING AND INSTALLATION.
2. G.C. SHALL ENSURE ALL EXTERIOR FINISHES ARE INSTALLED AND FINISHED IN COMPLIANCE WITH MANUFACTURER'S WARRANTY REQUIREMENTS.

Jarmel Kizel
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MATTHEW B. JARMEL, AIA, MBA
CT. LICENSE NUMBER: ARI-0011415

Project Number:	Scale:
TLECT21-041	1/8"=1'-0"
Drawn By: AM	Approved By: MBJ

Drawing Name:
PROPOSED ELEVATIONS

Drawing Number:
SA-1.2

TOWN OF VERNON

55 West Main St., VERNON, CT 06066-3291
(860) 870-3640
gmcgregor@vernon-ct.gov

OFFICE OF THE
TOWN PLANNER

MEMORANDUM

TO: Planning & Zoning Commission

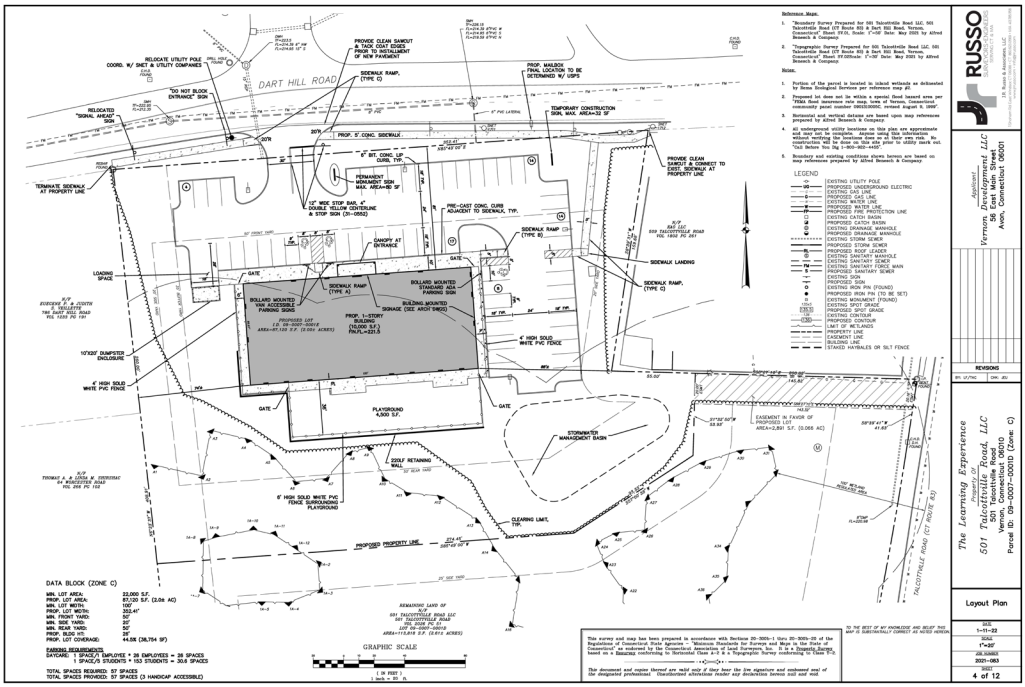
FROM: George K. McGregor, AICP, Town Planner

SUBJECT: PZ 2022-05, 501 Talcottville Rd. Site Plan & Special Permits Day Care Facility

DATE: March 3, 2022 **REVISED** April 21, 2022

Request

PZ-2022-05, 501 Talcottville Rd. An Application of Vernon Development LLC for a Site Plan and Special Permits to develop a 10,000 sq.ft. day care center at 501 Talcottville Rd. (Tax Map 09, Block 007, Parcel 0001D). Special permits requested include Section 4.9.4.15.1 (more than 40 parking spaces); Section 4.9.4.15.2 (structure within 200 feet of a residence); Section 4.9.4.15.3 (parking within 100 feet of a residence). The property is zoned Commercial and is 4.6 acres in size.





Site Location

Summary

The Applicant proposes to construct an approximately 10,000 sq. ft. day care facility, with a 5,000 sq. ft. play area, at 501 Talcottville Rd. Although addressed via parcel number on Talcottville Rd., the access to the site is proposed on Dart Hill Rd., with a proposed drive-way entrance across from the westernmost Walgreens entrance. Wetlands is present on the site. The development constitutes approximately .82 acres of disturbance in a regulated area. The Applicant has submitted a narrative, a site plan set, drainage plan, landscaping plan, traffic study, and architectural elevations, all included in the agenda packet.



Concurrent Review

Inland Wetlands Commission. The Applicant is processing a simultaneous Inland Wetlands Application for a re-designation of wetlands and a wetland permit. This application began review at the IWC on February 22; it was a continued to the March 22, 2022 meeting. A decision of the IWC application must take place before the Planning & Zoning Commission can act.

Planning & Zoning Commission. In addition, the property owner has filed a re-subdivision application (PZ 2022-06) to create a new, 2.6-acre lot out of the parent 4.6-acre tract, oriented toward Talcottville Rd.

Traffic Authority. The Application has been referred to the Vernon Traffic Authority. Unfortunately, the Authority could not achieve a quorum on February 10; it has been rescheduled for their next regular meeting on March 10, 2022.

Design Review Commission. The advisory Design Review Commission will take up the application's design elements on March 2, 2022.

Issues

Staff has identified two primary issues related to the site plan and special permit application: Traffic and access to the property and site development wetland impacts.

Traffic Impacts. Staff has raised a number of concerns related to access from Dart Hill Rd.: safe turning movements across multi-lanes, internal and external queuing conflicts, among other traffic concerns, in a congested part of the Vernon community[1]. The Applicant has responded to the traffic points; the email is attached to this memorandum. The Town Engineer, along with the Traffic Authority, will continue to review the responses and the issue. Staff notes that the Town Engineer had the occasion to observe site conditions on Tuesday, February 22, where he found the vehicle queue eastbound on Dart Hill Rd. extended to the Dart Hill Rd. bridge, well beyond the proposed driveway entrance. This appears to conflict with the Applicant's traffic study modeling. The Town Engineer is preparing formal comments under separate cover.

Site Impacts on the Wetland areas. The Inland Wetlands Commission is reviewing site impacts on the designated wetlands. The site development abuts quite closely to the established wetlands area and includes a retaining wall and significant fill. The Town Engineer and Town Wetlands agent continue to review the matter. The IWC has directed Staff to engage a third-party, wetland professional to review the technical documentation. In addition, the North Central Conservation District, which provides statutory review of erosion and sediment control plans, has identified several outstanding issues and is working directly with the applicant to resolve. This referral will also come under separate cover.

Other. The Zoning Enforcement Official finds that the site plan and special permits appear to the meet the site plan and zoning district regulations. The Health Department has provided a referral related to specific administrative health activities for childcare facilities. It is attached to the Staff memorandum.

[1] Town Planner letter to applicant, February 10, 2022

UPDATE FOR April 21, 2022

At the March 17, 2022 meeting, the applicant requested that the Commission NOT open the public hearing and instead move it to April 7, 2022. A subsequent request by the Applicant pushed the hearing start to April 21, 2022.

Adequate extensions have been provided by the Applicant (currently to May 5, 2022, with 26 of the 65 extension days exhausted).

The Applicant has submitted site plan (and drainage) revisions to the PZC and to the IWC for review. The revisions include a new access drive out to Route 83 (as a right in/right out movement) and a reduction in parking spaces in order to move the development away (towards Dart Hill Rd.) from the wetland areas by approximately 25 feet. Staff continues its review.

Two plan sets are included in the packet-alternative 1 (revised to include new access drive) and alternative 2 (revised to include access drive and reduction in parking).

Two additional emails from a neighbor have also been received (attached to staff memo).

<u>Other Commission Activities</u>

The Third-part review requested by the **Inland Wetlands Commission** is expected to be discussed by the IWC at a special meeting on May 3, 2022.

The Traffic Authority, which failed to achieve a quorum in March, will review the Application on April 14. Staff will report those findings on April 21, 2022.

The Applicant has filed a variance request with the **Zoning Board of Appeals** related to the parking reduction mentioned above. This will be heard on April 20, 2022.

Due to the outstanding items and ongoing review by other Commissions, Staff recommends a continuation of the public hearing.

From:	Kelley, John
To:	Ryniewicz, Dwight; Purcaro, Michael; McGregor, George; Gately, Shaun; Smith, David; Perry, Craig; Boucher, Joseph; Gallant, Lucas; Wasilewski, Daniel
Cc:	Wheelock, Diane; Schambach, Jeff; Carlson, Anne-Marie
Subject:	RE: Vernon, CT - Information Request
Date:	Thursday, December 23, 2021 10:35:37 AM

Tai,
In September 2021 I requested State DOT look at the left turn arrow timing at the intersection of Route 83 and Regan Road. Traffic backs up on Route 83 intending to turn left onto Regan Road due to vehicles leaving Rockville High School. This occurs in the morning after students are dropped off and in the afternoon. I have also received complaints regarding left turn arrows not being long enough for Regan Road traffic intending to turn left onto Route 83. I have not heard back from DOT yet.

John Kelley
Chief of Police
Vernon Police Department
725 Hartford Turnpike
Vernon, CT 06066
jkelley@vernon-ct.gov
(860)872-9126

From: Ryniewicz, Dwight
Sent: Wednesday, December 22, 2021 10:54 AM
To: Purcaro, Michael <mpurcaro@vernon-ct.gov>; McGregor, George <GMcGregor@vernon-ct.gov>; Gately, Shaun <sgately@vernon-ct.gov>; Smith, David <dsmith@vernon-ct.gov>; Perry, Craig <cperry@vernon-ct.gov>; Boucher, Joseph <JBoucher@vernon-ct.gov>; Kelley, John <jkelley@vernon-ct.gov>; Gallant, Lucas <lgallant@vernon-ct.gov>; Wasilewski, Daniel <DWasilewski@vernon-ct.gov>
Cc: Wheelock, Diane <dwheelock@vernon-ct.gov>; Schambach, Jeff <jschambach@vernon-ct.gov>; Carlson, Anne-Marie <acarlson@vernon-ct.gov>
Subject: FW: Vernon, CT - Information Request

Good morning.
Please see email below. I have not responded.

Dwight

From: Tai Le <TLe@fando.com>
Sent: Wednesday, December 22, 2021 8:59 AM
To: Ryniewicz, Dwight <dryniewicz@vernon-ct.gov>
Subject: [EXTERNAL] Vernon, CT - Information Request

CAUTION: This Email is from an EXTERNAL source. Ensure you trust this sender before clicking on any links or attachments.

Good morning Dwight,

I am currently working on a traffic impact study for a proposed daycare center at 501 Talcottville Road (State Route 83) located in Vernon, Connecticut. The existing site is currently vacant, and the proposed development is planned to range from 10,000 to 12,000 square feet with up to 57 supporting parking spaces. Site access to the property will be provided via one full access driveway on Dart Hill Road directly across from the existing Walgreens full access driveway.

I would like to inquire as to whether or not the Town of Vernon has knowledge of any upcoming roadway modifications planned within the study area, signal timing/rephrasing, change in lane arrangement, or anything of that nature?

Please see the following link for a map of the location: https://maphub.net/tle/501-Talcottville-Road

Thank you,

Tai

Tai Le, EIT
Transportation Engineer
Fuss & O'Neill, Inc. | 146 Hartford Road | Manchester, CT 06040
860.646.2469 x5291 | tle@fando.com
www.fando.com | twitter | facebook | linkedin

TOWN OF VERNON

Office of the Town Planner
14 Park Place • Vernon, CT 06066
Tel: 860-870-3640 • www.Vernon-ct.gov
gmcgregor@vernon-ct.gov

George McGregor, AICP
Town Planner

February 10, 2022

VIA Email

Tim Coon
Project Engineer
J.R. Russo & Associates, LLC
PO Box 938
East Windsor, CT 06088

Re: PZ 2022-05, 501 Talcottville Rd. Town Planner Comments

Dear Mr. Coon:

With regard to the above referenced application, I offer the following comments and questions.

General Site

1. The Wetlands Re-designation Plan is included as Sheet 2. The final version set does not need to include this sheet.
2. Please provide both a fence detail and a dumpster surround detail in the plan set.
3. Please provide (via email) color elevations; they will be helpful during the Design Review Commission meeting.
4. The commercial entrance is shown at 30' wide, allowing for one lane in and one lane out. This may cause internal queuing issues. Dependent upon the outcome of our traffic discussions (in detail below), please consider potentially separate right out and left out scenarios.

Traffic

5. A most significant challenging facing the development of this site is providing safe and efficient vehicular access to the property. The biggest concern is the clear potential for conflicts when cars drop off or pick up for day care: they must cross two lanes of traffic on Dart Hill Rd. Often during peak hours that traffic may queue (at least anecdotally) in front of the property causing delay and introducing unsafe turning movements. Bottom line: can facility customers enter and exit the site safely during peak a.m. and p.m.? How does the applicant plan to mitigate this potential conflict?
6. The traffic study does attempt to address the intersection of 83 and Dart Hill Rd. which will continue to operate at a level of Service F, unless some unspecified "optimization" takes place in an out year beyond 2025. Please explain how "optimization" will work, the timing therein, who will be responsible and who will pay for the optimization? The traffic study suggests that even with optimization, certain directional queues will get longer.

7. Perhaps, there are mitigation measures or options for alternative access than can be considered.

    a. A second point of access to Route 83
    b. Right in-Right out limitations on Dart Hill and/or Route 83
    c. Commitment to expedite, finance, and complete optimization measures.

8. Staff plans to observe site conditions (especially the dart Hill Rd. queuing scenario) during the a.m. and p.m. peaks and will report these observations to the Planning & Zoning Commission at the time of the public hearing.

With Regards,

George K. McGregor, AICP

NORTH CENTRAL CONSERVATION DISTRICT, INC.
AVON • BLOOMFIELD • BOLTON • BRISTOL • BURLINGTON • CANTON • COVENTRY • EAST GRANBY • EAST WINDSOR • EAST HARTFORD • ELLINGTON
ENFIELD • FARMINGTON • GLASTONBURY • GRANBY • HARTFORD • MANCHESTER • PLAINVILLE • SIMSBURY • SOMERS • SOUTH WINDSOR
STAFFORD • SUFFIELD • WEST HARTFORD • WETHERSFIELD • TOLLAND • VERNON • WILLINGTON • WINDSOR • WINDSOR LOCKS

Date: March 1, 2022

To: George K. McGregor, AICP, Town Planner
Town of Vernon Planning & Zoning Commission

From: Barbara Kelly, Program Coordinator, Registered Professional Soil Scientist, SSSSNE
Certified Erosion Control Professional CPESC #2180

Re: E&S Plan Review – The Learning Experience, 501 Talcottville Road, Vernon, Connecticut

****

This review is conducted pursuant to Section 18 of the Town of Vernon Zoning Regulations. The review is limited to certification of the erosion control plan, based on compliance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control (Guidelines).

District staff inspected the site on February 22, 2022. And reviewed a 12-sheet plan titled "The Learning Experience, Property of 501 Talcottville Road, LLC" (Plan), prepared by J.R. Russo & Associates, LLC and revised 2-14-22. Following a discussion with the Project Engineer on February 28, 2022, a *Grading & Erosion & Sediment Control* plan sheet and an *Erosion & Sediment Control* plan sheet with revision dates of 3-1-22 were reviewed.

The Plan proposes the construction of a retaining wall, a 10,000 square foot building, a 4,500 square foot playground, associated parking, and a stormwater management basin on the northern two acres of a 4.6 acre lot located at 501 Talcottville Road. The proposed development necessitates up to ten feet of fill. Post development, stormwater will be discharged at grade into wetlands located immediately south of the proposed development.

Background & Observations

Based on the Natural Resources Conservation Service Web Soil Survey, soils throughout the majority of the proposed construction area are mapped as somewhat excessively drained Hartford sandy loam on 3 to 8 percent slopes. The erosion hazard of this soil is considered moderate. The topography of the site will tend to direct any sediment laden stormwater toward the on-site wetlands. The Plan's "Soil Erosion and Sediment Control Notes" address dust control, vehicle tracking of sediments, and the maintenance of E&S measures.

Comment

Based on the observed site conditions, with proper implementation and maintenance, the soil erosion and sediment control measures shown in the Plan updated on 3-1-22 are adequate and appropriate. The District certifies that the Plan complies with the **2002 Connecticut Guidelines for Soil Erosion and Sediment Control**.

Thank you for the opportunity to comment.

WWW.CONSERVECT.ORG/NORTHCENTRAL
24 HYDE AVENUE • VERNON, CT 06066 • 860.875.3881 • FAX 860.870.8973 • TOLLANDC@SNET.NET

North Central District Health Department

Enfield—31 North Main Street, Enfield, CT 06082 * (860) 745-0383 Fax (860) 745-3188
Vernon—375 Hartford Turnpike, Room 120, Vernon, CT 06066 * (860) 872-1501 Fax (860) 872 1531
Windham—Town Hall, 979 Main Street, Willimantic, CT 06226 * (860) 465-3033 Fax (860) 465-3034
Stafford—Town Hall, 1 Main Street, Stafford Springs, CT 06076 * (860) 684-5609 Fax (860) 684-1768

Patrice A. Sulik, MPH, R.S.
Director of Health

February 22, 2022

Mr. George McGregor
Vernon Town Planner
55 West Main Street
Vernon, Connecticut 06066

Re: Special Permit – The Learning Experience
501 Talcottville Road
Vernon, Connecticut

Dear Mr. George McGregor:

I am writing regarding the Special Permit Application review for the Learning Experience at the above referenced address.

North Central District Health Department (NCDHD) has the following comments regarding the proposed Daycare:

- A Daycare Plan Review is required with this department:
    - The Learning Experience shall submit a scalable floor plan of the facility along with an exterior site plan showing the outside playground(s) area(s);
        - The floor plan must show the location of each piece of equipment, floor and counter, clearly labeled with its common name.
    - A menu of snacks and/or meals that will be served to the children shall be submitted;
    - Application for Day Care Center with the application fee
- If the Learning Experience is proposing to serve meals to the children at this daycare facility, a complete plan review for a licensed food service facility based on the NCDHD sanitary code Section 4 and the Public Health Food code CT-PHC19-13-B42 will be required. Should a plan review be required, the following shall be submitted for review:
    - Scalable floor plan of the kitchen/Pantry layout. The plan must show the location of each piece of equipment, floor and counter, clearly labeled with its common name;
    - Equipment specification sheets for proposed equipment. All equipment shall be National Sanitation Foundation (NSF) certified or equivalent;
    - A complete menu of meals that will be offered for review

- The NCDHD has the following comments on the submitted floor plan;
    - For any of the rooms that will have a diaper changing table, a dedicated hand wash sink that supplies running hot water within a range of 60°F to 115°F will be required.
    - An enclosed mop sink will be required for proper cleaning of the pantry floors and general cleaning of the establishment. The mop sink shall have a mop hanger to properly dry mops;
    - A utility wash sink to clean/wash equipment such as paint bowls, brushes etc. will be required;
    - A designated area is required for the storage of toxic chemicals and cleaners. In addition, these items and other potentially hazardous substances are required to be stored in a separate locked area.
    - Dumpsters will be required to reside on a concrete pad or equivalent.
    - The building will be required to connect to public water and public sewer.

Should anyone have any additional questions regarding this matter, I am reachable via email at bbielawiec@ncdhd.org. You can also call me at the NCDHD office at 860-745-0383, extension 114.

Sincerely,



Brian Bielawiec
Registered Sanitarian

VERNON-CT.GOV ON THE MOVE

David A. Smith, P.E., L.S.
Town Engineer

Vernon-ct.gov

Memo

To: George McGregor, Vernon Town Planner
From: David Smith, Vernon Town Engineer DAS
Date: March 2, 2022
Re: 501 Talcottville Road

I would like to take this opportunity to provide the following comments related to the application currently pending before the Planning and Zoning Commission on the subject parcel.

Stormwater Management –

The applicant's Engineer has submitted drainage calculations indicating that the post development condition will not increase stormwater runoff from the project site as compared to the current condition. Roof water will be directed to a recharge system located easterly of the proposed building which will reintroduce clean water into the subsoil gravelly soils. An overflow system has been provided to direct any roof runoff that exceeds the recharge system's capacity to the stormwater basin. That basin is designed to receive runoff from the parking area and some of the landscaped areas where it will be held back during the design storm and allowed to infiltrate through the vegetative and soil layers. This will serve to minimize impacts to the groundwater both in quality and quantity.

The existing pipe in the vicinity of the new driveway location is to be extended toward the limit of disturbance in the southwesterly corner of the project. The origin of the existing pipe under Dart Hill Road is unclear, but it is now part of the stormwater management of the Walgreen's Property. The 6" pipe shown on the upper left corner of the design plans would appear to provide some overflow capacity for their recharge basin (located on what is now Town of Vernon property), but the outlet on the applicant's property is buried, so it is questionable how much or often this pipe carries water. Regardless, the applicant proposes to provide a drainage manhole at the current end of the existing pipe and extend the system beyond their active development. A drainage easement and right to drain should be included as part of the proposal.

Traffic Considerations –

I have reviewed the Traffic Report prepared in support of this application. The driveway location as proposed has adequate sight lines looking both east and west to allow a vehicle to assess whether it is safe enter onto Dart Hill Road. The Traffic Counts for this activity indicate that we would expect approximately 1 vehicle per minute entering and exiting during the peak morning and afternoon hours. These peak periods correlate nicely with the heaviest traffic periods currently experienced on Dart Hill Road.

Tel: (860) 870-3663
55 West Main St., Vernon, CT 06066
dsmith@vernon-ct.gov
Fax: (860) 870-3683

On Tuesday Feb 22nd, I observed this stretch of road from the westerly drive of the Walgreen's property from approximately 3:30pm to 4:45pm. During the first half hour of this period, the vehicle stack from the light at Route 83 routinely extended to the proposed new driveway. During the second half hour, the stack extended to Thrall Road and the bridge. The intensity abated quite sharply after 4:30pm and the vehicle queue did not extend to the proposed driveway during the last dozen cycles that I observed. This condition is not reflected in the modeling provided in the traffic study. I am concerned that a single lane for entering and a single lane exiting, will negatively impact through traffic as well as vehicles dropping off students during these peak hours. The Traffic Report references optimizing the signal timing, which is presumed to be done by the State of CT sometime in the future. This would be done as part of proposed improvements to the Talcottville Road / Dart Hill / Regan Road independent of any development on this property, indicating that the current situation is already on the State's radar as a concern. The timing and extent of these improvements are mostly beyond our or the applicant's control. I believe it is prudent to review this proposal given the realities of today, acknowledging that some future condition may see changes in the future, but not relying on it as a solution.

The applicant may wish to consider an alternated drive configuration, an additional right turn exit lane at this location or at another. Another option might be to reduce the size of the facility since the trip generation numbers are based on service population related to building square footage. The number of required parking spaces is also driven by the size of the building. A modest reduction might free up areas that could be used to advantage in configuring alternate means of access.

Subdivision

Throughout the review process, the presentation of the subdivision seems to have been downplayed. The site plan has taken centerstage with the question of the lot size being a forgone conclusion. Typically, a lot is not subdivided without some assurance that a viable development can reasonably be expected to had on each parcel. At the February 22nd meeting of the Inland Wetland Commission the subdivision proposal was not discussed, but it will be part of the conversation at their March meeting.

The same wetland system that is part of their site development review is even more prevalent on the lot proposed to have frontage on Route 83. An action by the IWC to recognize a modest scheme could help define what may or may not be acceptable for a future development. It is conceivable that the creation of a new parcel without such a record could oblige the IWC to approve something that would exceed their typical standards to the detriment of the wetlands.

From: Judith Veillette
To: McGregor, George
Subject: [EXTERNAL] Talcottville Road project
Date: Saturday, April 2, 2022 11:17:20 PM

CAUTION: This Email is from an EXTERNAL source. Ensure you trust this sender before clicking on any links or attachments.

Hello again George,

I hate to bother you again, but this question comes to mind if this project is approved, despite all of the homeowners' objections.

When the Walgreens project was being built, we watched from a distance as the construction went on-it was quite an interesting sight. However, when this happens so close to our homes, there is going to be construction noise complete with the ground shaking, I'm positive. If the shaking causes pictures to fall off the walls and our belongings to come crashing down off the shelves, who do I call for help or compensation?

Thank you so much for your help-I have a feeling that we are going to be right in the line of fire, so to speak. Please don't ask us to move during construction, because my husband is a partially bed-ridden and wheelchair-bound invalid. This is not going to be easy for any of us living close to this construction site.

Thank you again,
Sincerely, Judith Veillette
786 Dart Hill Road

From: Judith Veillette
To: McGregor, George
Subject: [EXTERNAL] Talcottville Road project
Date: Saturday, April 2, 2022 11:17:20 PM

CAUTION: This Email is from an EXTERNAL source. Ensure you trust this sender before clicking on any links or attachments.

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Thank you again,
Sincerely, Judith Veillette
786 Dart Hill Road

From: Judith Veillette
To: McGregor, George
Subject: [EXTERNAL] Talcottville Road project
Date: Friday, March 11, 2022 11:51:57 PM

CAUTION: This Email is from an EXTERNAL source. Ensure you trust this sender before clicking on any links or attachments.

Hello again Mr. McGregor,

Thank you for speaking with me on the phone this week. One thought has stuck in my mind: the developers probably want an access road on Dart Hill Road across from Walgreen's entrance to give clients access to the day care center without going all the way to Talcottville Road, in effect, a "shortcut" into the facility.

I am having nightmares about the problems this would cause-traffic tie-ups, more bumper-to-bumper traffic than we already have on this road, not to mention the increase in fumes and pollution affecting our health. One of the biggest considerations is the potential for this to become a HUGELY ACCIDENT-PRONE section of road!

I understand that you are against the site plan as it stands, and I hope that this is one of the proposals that is thrown out once and for all!

Thank you for your time and consideration.

Sincerely,
Judith Veillette

From:	Mark Vertucci
To:	McGregor, George
Cc:	Perry, Craig; Smith, David; rema8@aol.com; Jay Ussery; Eric Spungin; Tim Coon; Tai Le; Mark Vertucci
Subject:	[EXTERNAL] RE: 501 Talcottville Road - Traffic Comments Response
Date:	Wednesday, February 16, 2022 12:08:59 AM
Attachments:	image001.png

CAUTION: This Email is from an EXTERNAL source. Ensure you trust this sender before clicking on any links or attachments.

Hi George,

Following up on Tim's email, please see our responses below to traffic related comments 4 through 8 in your February 10, 2022 letter regarding the above referenced project:

4. ***The commercial entrance is shown as 30' wide, allowing for one lane in and one lane out. This may cause internal queuing issues.***
   Dependent on the outcome of our traffic discussions (in detail below), please consider potentially separate right out and left out scenarios.

   As noted in the traffic analysis, the site driveway exit is projected to operate efficiently at LOS B during both peak hours with 95th percentile queues averaging one vehicle length or less. The existing single exit lane is adequate to support the volume of exiting traffic expected from this development. Dual exit lanes on an unsignalized intersection approaches should be avoided per CTDOT guidance as vehicles in this scenario jockey for sight line as they attempt to exit.

5. ***A most significant challenging facing the development of this site is providing safe and efficient vehicular access to the property. The biggest concern is the clear potential for conflicts when cars drop off or pick up for day care: they must cross two lanes of traffic on Dart Hill Road. Often during peak hours that traffic may queue (at least anecdotally) in front of the property causing delay and introducing unsafe turning movements. Bottom line: can facility customers enter and exit the site safely during peak a.m. and p.m.? How does the applicant plan to mitigate this potential conflict?***

   The traffic study analysis revealed that 95th percentile queues on the Dart Hill Road eastbound approach to Route 83 (Talcottville Road) reach up to 270 feet during the morning peak hour in the combined (build) conditions and up to 245 feet during the afternoon peak hour. The storage length from the proposed site driveway to the Dart Hill Road stop bar at Route 83 is approximately 400 feet, therefore the proposed site driveway is not obstructed by the typical maximum eastbound queues experienced at the intersection during peak hours. Field observations during the peak hours also revealed that these queues were not extending past the proposed site driveway location. It should be noted that the Dart Hill Road eastbound approach is in the process of opening up for a second turn lane in the vicinity of the proposed site driveway therefore westbound vehicles that would be turning left into the site from Dart Hill Road or vehicles exiting the site driveway are essentially yielding to only one lane of oncoming traffic approaching from the west. Results from the traffic analysis indicate that left turns from Dart Hill Road into the proposed driveway will operate very efficiently as LOS A and turns out of the proposed site driveway will also operate efficiently at LOS B with little delay. The proposed site driveway has been located as far west as possible to minimize the chance of queues from the traffic signal extending past the driveway while at the same time aligning the site driveway with the Walgreens driveway across the street. Aligning the two site driveways at a normalized intersection consolidates all vehicle

turning movements at a single point and reduces the number of potential vehicle conflict points. Moving the site driveway any further west would create an offset intersection and reduce safety.

With regard to the safety of vehicles exiting the proposed site, intersection sight distances in both directions were measured to exceed CTDOT criteria for safe egress. In addition, a review of crash data at the existing Walgreens driveway revealed that no crashes have occurred involving a vehicle turning into or out of the site driveway at this location. Based on the results of the traffic study, it is our professional opinion that traffic will be able to safely and efficiently enter and exit the daycare site from Dart Hill Road during both peak hours.

6. ***The traffic study does attempt to address the intersection of 83 and Dart Hill Rd. Which will continue to operate at a level of Service F, unless some unspecified "optimization" takes place in an out year beyond 2025. Please explain how "Optimization" will work, the timing therein, who will be responsible and who will pay for the optimization? The traffic study suggests that even with optimization, certain directional queues will get longer.***

   The proposed optimization of signal timings at the intersection of Route 83 at Dart Hill Road and Regan Road will increase the overall efficiency (and reduce overall delay) of the intersection by reallocating the amount of green time provided for each leg of the intersection. The traffic study analysis revealed that this intersection was operating acceptably during the morning peak hour of traffic at LOS C and this LOS will remain unchanged with the additional development traffic. During the afternoon peak hour, timing optimization can improve the intersection operation to LOS E which is a better operation than what is occurring in the existing condition. The optimization will also significantly decrease queueing on the Route 83 through lanes however the tradeoff is some minor increase in queueing in the Route 83 left turn lanes and the Dart Hill Road/Regan Road side street approaches. As this intersection is State owned and maintained, any timing optimizations would need to be coordinated with CTDOT. Revising the timings in the signal controller, if agreed to by CTDOT, would be handled with a service order to DOT maintenance staff. There is no cost involved to modify the signal timing settings in the controller. As noted in the traffic study, the traffic signal at this intersection is slated for complete replacement by CTDOT within the next three years under State project 171-0471. Upon completion of this signal upgrade, the safety and efficiency of traffic operations at this intersection will be improved.

7. ***Perhaps, there are mitigation measures or options for alternative access that can be considered such as a second point of access to Route 83, right in/right out limitation on Dart Hill and/or Route 83, or commitment to expedite, finance and complete optimization measures.***

   A second point of access on Route 83 for the daycare center is not recommended as the volume of opposing traffic on Route 83 is substantially higher than the volume of traffic on Dart Hill Road. As a point of comparison, 2,671 vehicles pass the site frontage on Route 83 during the PM peak hour while only 612 vehicles pass the site frontage on Dart Hill Road. In addition, Route 83 is five lanes wide at the site frontage and northbound queues from the traffic signal extend 490 feet past the site frontage during the afternoon peak hour. The combination of heavy traffic volumes, queueing from the signal and the need to cross multiple lanes of traffic would make left turns into or out of a site driveway on Route 83 very difficult. In addition, a right in/right out limitation on Dart Hill Road would offer no option for vehicles exiting the site who intend to head west on Dart Hill Rd. As noted in the response above, left turns into the site driveway on Dart Hill Rd are projected to operate at the most efficient LOS A during both peak hours,

therefore there would be no justification for restricting this movement. Also as noted above, interim timing optimizations at the signal can be reviewed/coordinated with CTDOT and completed at no cost prior to the full signal replacement that is anticipated to be completed by 2025.

8. ***Staff plans to observe site conditions (especially the Dart Hill Rd queueing scenario)during the AM and PM peaks and will report these observations to the PZC at the time of the public hearing.***

   Noted.

Please let me know if you have any questions or would like to discuss further.

Thanks,
Mark
Mark Vertucci, PE, PTOE
Vice President
Fuss & O'Neill, Inc. | 146 Hartford Road | Manchester, CT 06040
860.646.2469 x5381 | mvertucci@fando.com | cell: 860.729.0186
www.fando.com | twitter | facebook | linkedin

From: Tim Coon <tcoon@jrrusso.com>
Sent: Tuesday, February 15, 2022 3:36 PM
To: McGregor, George <GMcGregor@vernon-ct.gov>
Cc: Perry, Craig <cperry@vernon-ct.gov>; Smith, David <dsmith@vernon-ct.gov>; rema8@aol.com; Jay Ussery <jussery@jrrusso.com>; Eric Spungin <espungin@hotmail.com>; Mark Vertucci <MVertucci@fando.com>
Subject: [External] 501 Talcottville Road

George,

I am providing this email and its attachments (revised plans and drainage report) in response to the plan review comments received from Craig Parry dated 2-7-22. A response to Craig's comments is provided below:

Craigs Re-designation Comments:

The soil scientist, George Logan from REMA Ecological Services, will be preparing and submitting an Impact Assessment/Function & Values Assessment under separate cover. It is anticipated that Mr. Logan will address Craigs comments 1 and 3 regarding the delineation and re-designation in that report. With regard to comment 2, I would like to point out that Note #1 on the Redesignation Plan identifies REMA Ecological Services as the entity which delineated the wetlands shown on the plans.

Craig's comment Regarding the Wetland Permit:

1. Despite the significant amount of fill required at the site, the runoff across the site will be very limited based on the existing sandy soils and limited distance across the site. It is believed that a single silt fence, if maintained properly, is sufficient to protect the downgradient wetland from sedimentation and erosion. However, based on Mr. Perry's concerns, the plans have been revised to include the placement of a wood chip berm to back

up the silt fence installed at the edge of the downgradient wetland.

2. The plans have been revised to extend the sediment barrier (silt fence backed by a wood chip berm) along the utility corridor out to Talcottville Road.
3. As discussed above, a Wetland Impact Assessment/Functions & Values Assessment is being prepared by George Logan of REMA and will be submitted separately. However, in the preparation of his report, George has made a couple of recommendations for wetland enhancement and creation which have been added to these revised plans. In particular, the plans identify a particular area of wetlands to the south of the development area where we are proposing a series of plantings to enhance the existing wetland. In addition, the plans identify an upland area between wetland flags #14 and #24 where we are proposing to create some wetlands by excavating a small pool and seeding with a wetland seed mix. I believe George's report will provide additional discussion regarding these measures.

In addition to the plan revisions noted above, revisions were also made to address the off-site runoff from the adjacent Panda Palace parking lot that is currently directed to the development site through an existing break in the curb line at the western edge of their parking lot. This includes untreated runoff from approximately 0.6 acres of impervious area at the Panda Palace which currently runs across the proposed development area at the site into the on-site wetland. The plan revisions include the installation of a riprap channel, yard drain and piping to intercept this runoff at the property line and convey it to the new on-site stormwater management basin where it will be treated and some of it recharged prior to discharge into the wetland. The attached plans and Drainage Report have been revised to reflect the interception and treatment of this off-site runoff. As a result, the proposed project will eliminate this discharge of untreated runoff to the wetland from the Panda Palace.

Finally, because I have also received your Town Planner comments dated 2-10-22, I have also separated the Wetland Re-designation Plan from the plan set and added both a fence and a dumpster surround detail, which address your first two comments. The architect will be providing color elevations to address your comment #3. Because your remaining comments (#4-#8) are all traffic related, a separate response is being prepared by the traffic engineer, Mark Vertucci at Fuss & O'Neill.

Also, as I have expressed to many of you on this email, I will be out of town until February 28th. In my absence, Jay Ussery from my office (copied above) will be handling this project and the wetland meeting next Tuesday. Please be sure that any correspondence meant for J.R. Russo & Associates is addressed to Jay during this time frame. Thank you.

Timothy A. Coon, P.E.
Principal Engineer

RUSSO
SURVEYORS · ENGINEERS

J.R. RUSSO & ASSOCIATES, LLC

P.O. Box 938, 1 Shoham Road
East Windsor, CT 06088
CT 860.623.0569 **MA** 413.785.1158
tcoon@jrrusso.com | www.jrrusso.com

APPLICATION AND ATTACHEMENTS

4. PZC 2022-06

TOWN OF VERNON PLANNING & ZONING COMMISSION (PZC)

APPLICATION

This form is to be used to apply to the Vernon Planning & Zoning Commission (PZC) for a change of zoning district, amendment of the Zoning Regulations, Site Plan of Development (POD), Special Permit(s), amendment of the Subdivision Regulations, and/or approval of a (re) subdivision, or DMV location approval. **Provide all the information requested.**

The applicant must be the property owner, the property owner's agent, the Town of Vernon, or someone with a direct financial interest in the subject property; said interest shall be explained and written permission for this application must be obtained from the property owner and submitted with this application if the applicant is not the property owner (ZR Section 2.3).

The list of approvals and the references to sections of the Regulations are for informational purposes only to assist with preparation of the PZC application and are not a definitive statement of the sole requirements that may apply to a specific project.

The applicant understands that the application is complete only when all information and documents required by the PZC have been submitted and, further, that any approval by the PZC relies upon complete and accurate information being provided by the applicant. **Incorrect information provided by the applicant may make the approval invalid.** The PZC may require additional information to be provided by the applicant in the course of reviewing the application and during the monitoring of the project.

Provide all the information requested:

I. APPLICANT:

Name: James J Basile

Title: Manager

Company: 501 Talcottville Road, LLC

Address: 43 Ridgecrest Lane
Bristol, CT 06010

Telephone: 860-202-9540 Fax: _____

E-mail _____

II. PROPERTY OWNER (S):

Name: James J. Basile

Title: Manager

Company: 501 Talcottville Road, LLC

Address: 43 Ridgecrest Lane
Bristol, CT 06010

Telephone: 860-202-9540 Fax _____

E-mail: _____

III. PROPERTY

Address: _____

Assessor's ID Code: Map # 09 Block # 0007 Lot/Parcel # 0001D

Land Record Reference to Deed Description: Volume: 2026 Page 51

Does this site contain a watercourse and/or wetlands? (See the Inland Wetlands Map and IWR Section 2.14, 2.15, 2.23, 2.24, 3.11; 4)

__ No X Yes

X No work will be done in regulated area
___ Work will be done in the regulated area

__ IWC application has been submitted
__ IWC application has not been submitted

Zoning District _____

Is this property located within five hundred (500) feet of a municipal boundary?

X No
___ Yes:

___ Bolton
___ Coventry
___ Ellington
___ Manchester
___ South Windsor
___ Tolland

Check if Historic Status Applies:

___ Located in historic district:

___ Rockville
___ Talcottville

___ Individual historic property

IV. PROJECT

Project Name: Subdivision of 501 Talcottville Road

Project Contact Person:

Name: Ryan Scrittorale, P.E.

Title: Project Manager

Company: Alfred Benesch & Company

Address: 170 Hebron Avenue, Second Floor
Glastonbury, CT 06033

Telephone: 860 550 2673 Fax:

E-mail: RScrittorale@benesch.com

V. PZC APPLICATION
PROJECT SUMMARY

Describe the project briefly in regard to the purpose of the project and the activities that will occur. Attach to this application a complete and detailed description with maps and documentation as required by the **"Town of Vernon Zoning Regulations"** and **"Town of Vernon Subdivision Regulations"**.

Purpose: Divide Existing lot into two Seperate Parcels

General Activities: _____

_____

_____

VI. APPROVAL (S) REQUESTED

X **Subdivision or Resubdivision**

___ Subdivision (Sub. Sec. 4, 5, 6)
X Resubdivision (Sub. Sec. 4, 5, 6)
___ Minor modification f subdivision or resubdivision (Sub. Sec. 4.6)
___ Town acceptance of a road (Sub. Sec. 6.5-6. 8 & 9)
___ Amendment of Subdivision Regulations (Sub. Sec. II)

See Subdivision Regulations Sec. 4 for application fee schedules.

___ **Soil Erosion and Sediment Control Plan (ESCP)** (ZR Sec. 2.117; 18) (Sub. 6.14)

___ **Site Plan of Development (POD)** (ZR Sec. 14)

___ POD approval (ZR Sec. 14.1.1.1; 14.1.2)
___ Modification of an approved POD (ZR Sec. 14.1.1.1)
___ Minor modification of a site POD (ZR Sec. 14.1.1.2)

___ **Special Permit(s)** (ZR Section 17.3)

___ Special Permit in an aquifer area (ZR Sec. 2.4; 2.5; 2.119; 20)
___ Special Permit for excavation (ZR Sec. 2.52; 2.79; 15)
___ Special Permit for use in a district (ZR Sec. 1.2 & 4)

___ Special Permit for lot coverage (ZR Sec. 1.2; 2.61; 2.68; 4)
___ Special Permit for signs (ZR Sec. 1.2; 2.106-115; 4; 16; 21.7)
___ Special Permit for parking (ZR Sec. 4; 12; 21.4

___ Special Permit for elderly housing (ZR Sec. 2.60; 17.4)
___ Special Permit for Bed & Breakfast (B & B) (ZR Sec. 2.9; 17.3.4)
___ Special Permit for serving alcohol (ZR Sec. 2.103, 17.1)

___ Special Permit for massage (ZR Sec. 2.76-78; 4)
___ Special Permit for telecommunications (ZR Sec. 2.21; 3.23 & 23)
___ Special Permit for dumps and/or incinerators (ZR Section 8)

____Other Special Permit(s). Cite ZR Section and describe activity:

_____

_____

____ Special Permit modifications (ZR Sec. 17.3.2.2). Cite ZR Section and describe activity.

_____

_____

_____

_____

____ **Zoning:**

____ Site specific change of zoning district and map (ZR Sec. 1.2; 1.3; 4)
____ Amendment of Zoning Regulations (Sec. 1.2; 1.3; 4)

____Site specific change to the Aquifer Protection Overlay Zone Map (ZR Sec. 20.3.2)

See Zoning Regulations Section 22 for application fee schedules.

____ Dealer or Repairer License (location approval for DMV)

VII. APPLICATION CONDITIONS / STIPULATIONS

The following provisions apply to all applications submitted to the Planning & Zoning Commission (PZC) and are incorporated as part of the application.

All information shall be submitted to the Town Planner and no application shall be considered as being filed if incomplete or if delivered to any other Town Official (Sub Sec.4).

If the area to be developed contains more than one-half (1/2) acre area that will be physically altered or disturbed, a completed erosion and sedimentation control plan (ESCP) in accordance with Zoning Regulations Section 18 and/or Subdivision Regulations Section 6.14, as applicable, must be submitted. The applicant shall be responsible for all costs associated with the certification of the ESCP.

By signing this application, permission is granted to Commission members, employees of the Town of Vernon, and persons assisting the Town Staff to go onto the subject property to make inspections pursuant to the application review, approval, bonding requirements, or obtaining information materially relevant to the application.

No application coming before a Commission may be withdrawn after it has been advertised for a public hearing unless the Chairman or Secretary of the Commission is notified in writing by the applicant or his representative not later than forty-eight (48) hours prior to the scheduled hearing before the Commission. All fees encumbered in the advertising and review of the application is non-refundable (ZR Section 1.5).

All applications must be submitted on drawings which are one of the following sizes: 8.5" x 11"; 12" x 18", 18" x 24"; 24" x 36". Subdivision and resubdivision maps must be 24" x 36".

The application shall include an **8.5" x 11" map showing the location** of the site and **an 8.5" x 11" general plan of development (POD) map** showing the development proposed on the site.

A legal description of the subject property must be submitted with this PZC application. The legal description should bear the Volume number and Page number by which it is recorded in the land records.

Applications to the Planning & Zoning Commission (PZC) require notification of property owners within two hundred feet (200') of the subject property. **A list of property owners and a complete set of mailing labels must be submitted with the application.**

Applicants shall **submit one copy of a brief narrative including a traffic impact statement,** outlining the proposed activity and the reason for the application. The traffic impact statement shall provide sufficient data for the Vernon Traffic Authority and PZC to be able to access traffic conditions relative to the location, site design, and proposed activity.

Applicant shall submit **twenty (20) copies of a map** showing all information required in Zoning Regulations Section 14 Site Plans, and Section 17.3.2 Special Permits as may be required, and/or the Subdivision Regulations Section 4,5,7.

The map must be prepared by a licensed surveyor, if the application involves (a) exterior modification to the building or premises, such as off-street parking, which need dimensionally critical measurements to insure compliance with zoning or (b) the improvements involve disturbing more than one half acre of land.

Applicant shall submit the above-required information to the Town Planning Office accompanied by a **check in the amount determined by the fees established by the State of Connecticut,** Town of Vernon and/or the PZC with the application. The check, which is required as a filing fee, is to be payable to, "Town of Vernon". (See attached fee schedule).

THE APPLICATION WILL BE CONSIDERED INCOMPLETE IF ANY REQUIRED INFORMATION IS NOT SUBMITTED.

APPLICANT SHALL FILE A COPY OF ANY PROPOSED REGULATION AMENDMENT, ZONE CHANGE, OR WETLANDS REDESIGNATION WITH THE TOWN CLERK TEN (10) DAYS PRIOR TO THE HEARING AS PER SECTIONS 8-3(a) AND (d) AND 22a-42a (b) OF THE GENERAL STATUTES. CERTIFICATION OF THE FILING UNDER THESE SECTIONS BY THE APPLICANT MUST BE PRESENTED AT THE PUBLIC HEARING.

Per Connecticut General Statutes (CGS) Section 8-26: If an application submitted to the Planning & Zoning Commission (PZC) involves any activity or area regulated under the wetlands statutes, an application for this activity must be filed with the Inland Wetlands Commission (IWC) on or before the day the Planning & Zoning Commission (PZC) application is filed by the applicant. (IWR Sec. 3.11)

Per CGS Sec. 8-31: If the proposed activity is to take place within a watershed of a Water company, the applicant is required to file a copy of the application with the Water Company via certified mail within seven (7) days of the date of the application. (IWR Sec. 4.3.6).

The applicant, undersigned, has reviewed the "Town of Vernon Planning and Zoning Regulations and Inland Wetlands and Watercourses Regulations" and has prepared this application with complete and accurate information:

Property Owner, Applicant, or Applicant's Agent:

James J Basile

501 Talcottville Road LLC

Signature — Date: 1/21/22

Signature — Date

TO BE FILLED IN BY THE PLANNING DEPARTMENT

Date Application Submitted _____

Date Application Received by Commission _____

PZC File: _____

USE THIS FORM ONLY IF THE REQUIREMENTS OF
8.3(a)/22-a-42a(b) OF THE C.G.S. MUST BE MET

RECEIPT FOR DOCUMENTS SUBMITTED FOR PUBLIC INSPECTION

TO: VERNON TOWN CLERK

FROM:

REFERENCE:

DATE"

The attached documents, consisting of:

Are being submitted for public inspection under CGS 8-3(a)/22a-42a (b).

Received: _____

Vernon Town Clerk _____
Signature

Date: _____

PLANNING AND ZONING COMMISSION APPLICATION FOR:

PROPOSED SUBDIVISION

501 TALCOTTVILLE ROAD
VERNON, CONNECTICUT

DATE: JANUARY 21, 2022 REV. 0

ZONE	MAP / BLOCK / LOT
C	09 / 0007 / 0001D

OWNER/APPLICANT:

501 TALCOTTVILLE ROAD, LLC
43 RIDGECREST LANE
BRISTOL, CT 06010

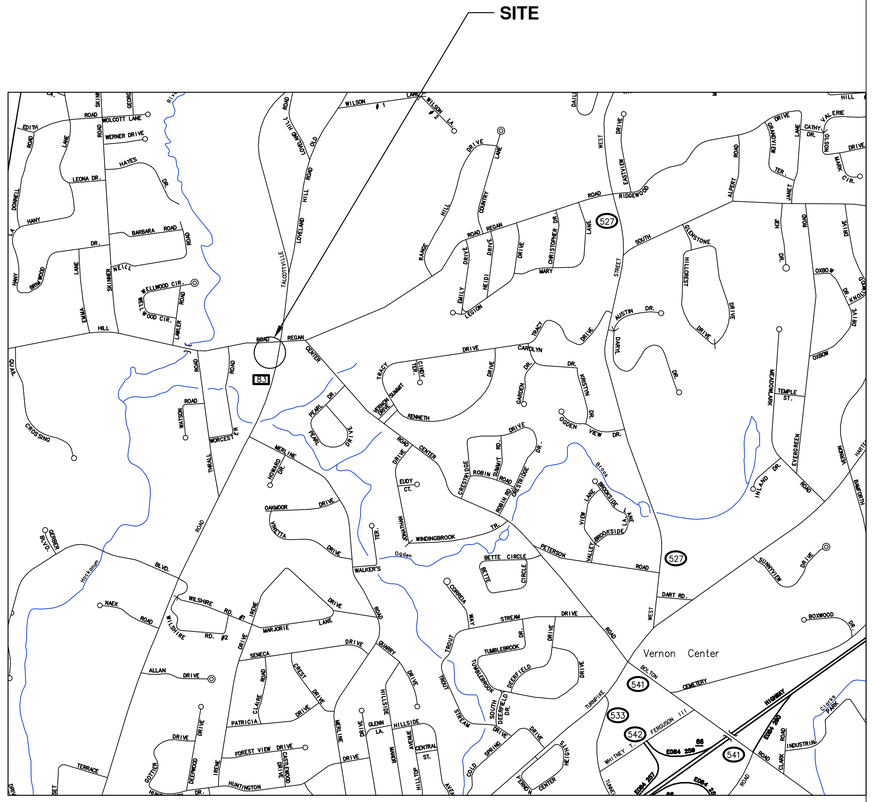
CONSULTANTS

benesch

Alfred Benesch & Company
120 Hebron Avenue - Second Floor
Glastonbury, CT 06033
(860) 633-8341

LIST OF DRAWINGS

CS	COVER SHEET
SV.01	BOUNDARY SURVEY
SV.02	BOUNDARY SURVEY
SV.01	SUBDIVISION PLAN
SV.02	SUBDIVISION PLAN



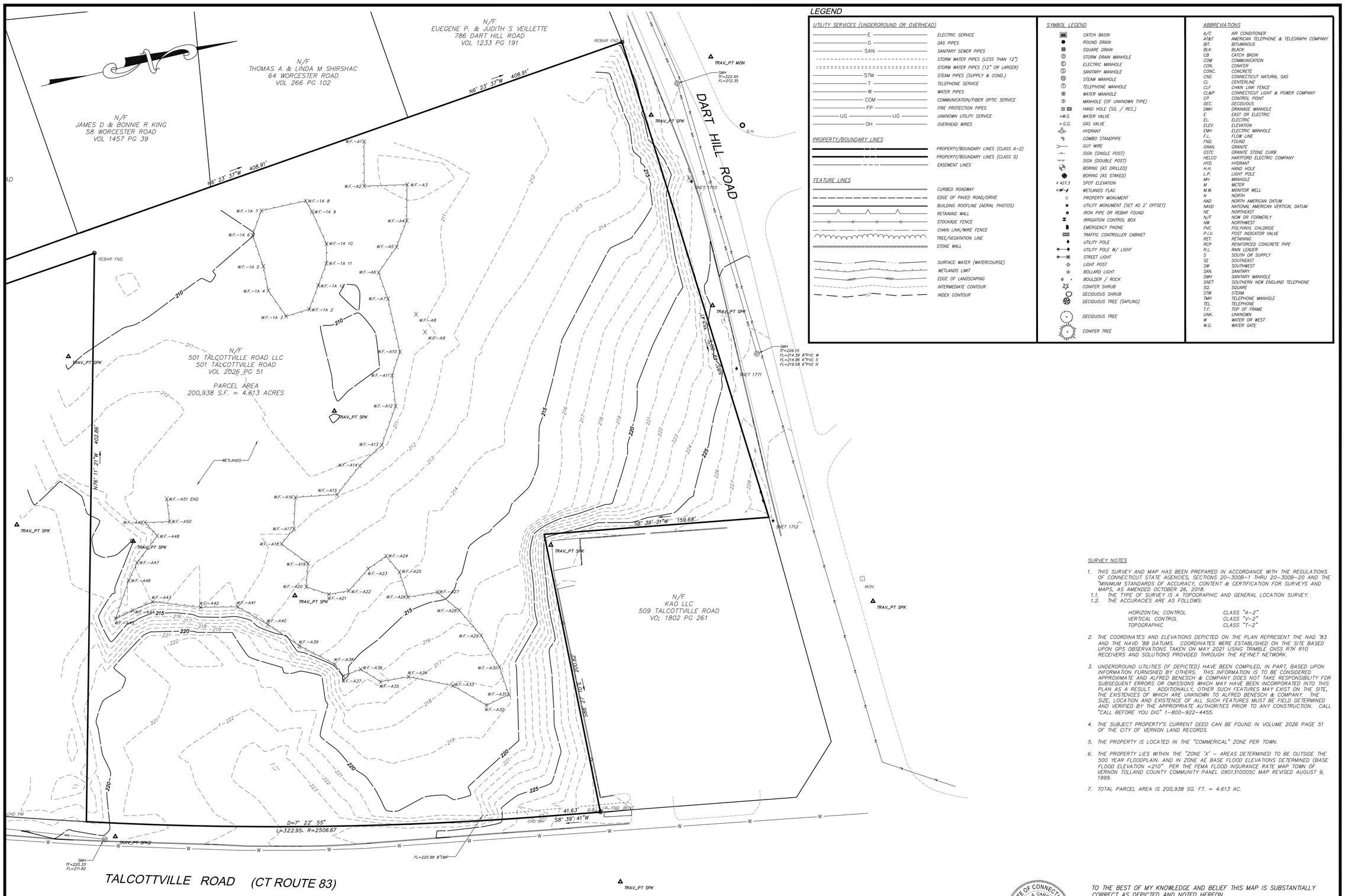
VICINITY MAP

SCALE: 1"=1000'

JOB NO: 70557.00



SITE
83
BARBARA ROAD
BEECH ROAD
BEECH ROAD
BEECH



LEGEND

UTILITY SERVICES (UNDERGROUND OR OVERHEAD)

E	ELECTRIC SERVICE
G	GAS PIPES
SAN	SANITARY SEWER PIPES
	STORM WATER PIPES (LESS THAN 12")
	STORM WATER PIPES (12" OR LARGER)
STM	STEAM PIPES (SUPPLY & COND.)
T	TELEPHONE SERVICE
W	WATER PIPES
COM	COMMUNICATION/FIBER OPTIC SERVICE
FP	FIRE PROTECTION PIPES
UG UG	UNKNOWN UTILITY SERVICE
OH	OVERHEAD WIRES

PROPERTY/BOUNDARY LINES

- PROPERTY/BOUNDARY LINES (CLASS A–2)
- PROPERTY/BOUNDARY LINES (CLASS D)
- EASEMENT LINES

FEATURE LINES

- CURBED ROADWAY
- EDGE OF PAVED ROAD/DRIVE
- BUILDING ROOFLINE (AERIAL PHOTOS)
- RETAINING WALL
- STOCKADE FENCE
- CHAIN LINK/WIRE FENCE
- TREE/VEGATATION LINE
- STONE WALL
- SURFACE WATER (WATERCOURSE)
- WETLANDS LIMIT
- EDGE OF LANDSCAPING
- INTERMEDIATE CONTOUR
- INDEX CONTOUR

SYMBOL LEGEND

- CATCH BASIN
- ROUND DRAIN
- SQUARE DRAIN
- STORM DRAIN MANHOLE
- ELECTRIC MANHOLE
- SANITARY MANHOLE
- STEAM MANHOLE
- TELEPHONE MANHOLE
- WATER MANHOLE
- MANHOLE (OF UNKNOWN TYPE)
- HAND HOLE (SQ. / REC.)
- W.G. WATER VALVE
- G.G. GAS VALVE
- HYDRANT
- COMBO STANDPIPE
- GUY WIRE
- SIGN (SINGLE POST)
- SIGN (DOUBLE POST)
- BORING (AS DRILLED)
- BORING (AS STAKED)
- x 427.3 SPOT ELEVATION
- WETLANDS FLAG
- PROPERTY MONUMENT
- UTILITY MONUMENT (SET AS 2' OFFSET)
- IRON PIPE OR REBAR FOUND
- IRRIGATION CONTROL BOX
- EMERGENCY PHONE
- TRAFFIC CONTROLLER CABINET
- UTILITY POLE
- UTILITY POLE W/ LIGHT
- STREET LIGHT
- LIGHT POST
- BOLLARD LIGHT
- BOULDER / ROCK
- CONIFER SHRUB
- DECIDUOUS SHRUB
- DECIDUOUS TREE (SAPLING)
- DECIDUOUS TREE
- CONIFER TREE

ABBREVIATIONS

A/C	AIR CONDITIONER
AT&T	AMERICAN TELEPHONE & TELEGRAPH COMPANY
BIT.	BITUMINOUS
BLK.	BLACK
CB	CATCH BASIN
COM.	COMMUNICATION
CON.	CONIFER
CONC.	CONCRETE
CNG	CONNECTICUT NATURAL GAS
CL	CENTERLINE
CLF.	CHAIN LINK FENCE
CL&P	CONNECTICUT LIGHT & POWER COMPANY
CP	CONTROL POINT
DEC.	DECIDUOUS
DMH	DRAINAGE MANHOLE
E	EAST OR ELECTRIC
EL.	ELECTRIC
ELEV	ELEVATION
EMH	ELECTRIC MANHOLE
F.L.	FLOW LINE
FND.	FOUND
GRAN.	GRANITE
GSTC.	GRANITE STONE CURB
HELCO	HARTFORD ELECTRIC COMPANY
HYD.	HYDRANT
H.H.	HAND HOLE
L.P.	LIGHT POLE
MH	MANHOLE
M	METER
M.W.	MONITOR WELL
N	NORTH
NAD	NORTH AMERICAN DATUM
NAVD	NATIONAL AMERICAN VERTICAL DATUM
NE	NORTHEAST
N/F	NOW OR FORMERLY
NW	NORTHWEST
PVC	POLYVINYL CHLORIDE
P.I.V.	POST INDICATOR VALVE
RET.	RETAINING
RCP	REINFORCED CONCRETE PIPE
R.L.	RAIN LEADER
S	SOUTH OR SUPPLY
SE	SOUTHEAST
SW	SOUTHWEST
SAN.	SANITARY
SMH	SANITARY MANHOLE
SNET	SOUTHERN NEW ENGLAND TELEPHONE
SQ.	SQUARE
STM	STEAM
TMH	TELEPHONE MANHOLE
TEL.	TELEPHONE
T.F.	TOP OF FRAME
UNK.	UNKNOWN
W	WATER OR WEST
W.G.	WATER GATE

SURVEY NOTES

1. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20–300B–1 THRU 20–300B–20 AND THE "MINIMUM STANDARDS OF ACCURACY, CONTENT & CERTIFICATION FOR SURVEYS AND MAPS, AS AMENDED OCTOBER 26, 2018.
   1.1. THE TYPE OF SURVEY IS A TOPOGRAPHIC AND GENERAL LOCATION SURVEY.
   1.2. THE ACCURACIES ARE AS FOLLOWS:

HORIZONTAL CONTROL	CLASS "A–2"
VERTICAL CONTROL	CLASS "V–2"
TOPOGRAPHIC	CLASS "T–2"

2. THE COORDINATES AND ELEVATIONS DEPICTED ON THE PLAN REPRESENT THE NAD '83 AND THE NAVD '88 DATUMS. COORDINATES WERE ESTABLISHED ON THE SITE BASED UPON GPS OBSERVATIONS TAKEN ON MAY 2021 USING TRIMBLE GNSS RTK R10 RECEIVERS AND SOLUTIONS PROVIDED THROUGH THE KEYNET NETWORK.
3. UNDERGROUND UTILITIES (IF DEPICTED) HAVE BEEN COMPILED, IN PART, BASED UPON INFORMATION FURNISHED BY OTHERS. THIS INFORMATION IS TO BE CONSIDERED APPROXIMATE AND ALFRED BENESCH & COMPANY DOES NOT TAKE RESPONSIBILITY FOR SUBSEQUENT ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO THIS PLAN AS A RESULT. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCES OF WHICH ARE UNKNOWN TO ALFRED BENESCH & COMPANY. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO ANY CONSTRUCTION. CALL "CALL BEFORE YOU DIG" 1–800–922–4455.
4. THE SUBJECT PROPERTY'S CURRENT DEED CAN BE FOUND IN VOLUME 2026 PAGE 51 OF THE CITY OF VERNON LAND RECORDS.
5. THE PROPERTY IS LOCATED IN THE "COMMERICAL" ZONE PER TOWN.
6. THE PROPERTY LIES WITHIN THE "ZONE 'X' – AREAS DETERMINED TO BE OUTSIDE THE 500 YEAR FLOODPLAIN. AND IN ZONE AE BASE FLOOD ELEVATIONS DETERMINED (BASE FLOOD ELEVATION =210" PER THE FEMA FLOOD INSURANCE RATE MAP TOWN OF VERNON TOLLAND COUNTY COMMUNITY PANEL 09013I0005C MAP REVISED AUGUST 9, 1999.
7. TOTAL PARCEL AREA IS 200,938 SQ. FT. = 4.613 AC.

STATE OF CONNECTICUT · DAVID A. CARICCHIO · No. 70036 · LICENSED LAND SURVEYOR

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS DEPICTED AND NOTED HEREON.

1/21/22

DAVID A. CARICCHIO, P.L.S. No. 70036 — DATE
ALFRED BENESCH & COMPANY, GLASTONBURY, CONNECTICUT
(not valid without original signature and embossed seal)

REVISIONS		
No.	DATE	DESCRIPTION

SURVEY BOOK: 21-01
SURVEYOR: PC
DRAWN: DAC
CHECKED: RS
APPROVED: WW

SCALE: HORZ.: 1" = 30'
VERT.:
SURVEY DATUM: HORZ.: NAD 1983
VERT.: NAVD 1988

GRAPHIC SCALE 30 0 15 30

Prepared By:

benesch

Alfred Benesch & Company
120 Hebron Avenue – 2nd Floor
Glastonbury, Connecticut 06033
Phone (860) 633–8341, Fax: (860) 633–1068
www.benesch.com

TOPOGRAPHIC SURVEY
PREPARED FOR
501 TALCOTTVILLE ROAD LLC
501 TALCOTTVILLE ROAD (CT ROUTE 83)
& DART HILL ROAD
VERNON CONNECTICUT

PROJ. No.: 70557.00
DATE: MAY 2021

SV.02

PAPER SPACE LAYOUT NAME:
TWISTVIEW:
VIEW NAME:
LAYER MANAGER NAME:
PLOT TABLE: STB

File Location/Name - Y:\Glastonbury\70500\70557.00_Basile_Vernon\Survey\ACAD\70557 BASE.dwg
Date of Plot: January 21, 2022 - 2:55 PM



MAP REFERENCES

1. "PROPERTY AND TOPOGRAPHIC SURVEY FOR VICTOR J. BASILE 501 TALCOTTVILLE ROAD VERNON CONNECTICUT SATE JAN 2006 SCALE 1"=40' REVISED 1/24/07 BY A-N CONSULTING ENGINEERS"
2. P"PROPOSED SITE PLAN PREPARED FOR VICTOR BASILE #501 TALCOTTVILLE ROAD & DART HILL ROAD VERNON, CONNECTICUT DATED MARCH 1993 SCALE 1"=40' BY A.R. LOMBARDI ASSOCIATES"
3. "SUBDIVISION MAP PREPARED FOR JOHN J. MAHR SR. BOUNDARY MAP TALCOTTVILLE RD. AND DART HILL ROAD VERNON, CONN DATED MARCH 7, 1985 SCALE 1"=40' BY A.R. LOMBARDI"
4. "PRELIMINAREY RIGHT OF WAY STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP TOWN OF VERNON TALCOTTVILLE ROAD FORM PITKIN ROAD NORTHWESTERLY TO WINDSORVILLE ROAD SCALE 1"=40' DATED JANUARY 19, 1999 SHEET 6 OF 12 AND SHEET 7 OF 12"
5. "MAP SHOWING PROPOSED DRAINAGE EASEMENT OVER LAND OF JOHN J. LUITERMOZA AND THEODORE J ZIMMERMAN AND LAND OF JOHN F. MAHR AND JPHN J MAHE SR. SCALE 1"=40" DATED JULY 2 , 1975 REVISED 9-30-75 BY EVERETT O. GARDNER"

SURVEY NOTES

1. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300B-1 THRU 20-300B-20 AND THE "MINIMUM STANDARDS OF ACCURACY, CONTENT & CERTIFICATION FOR SURVEYS AND MAPS, AS AMENDED OCTOBER 26, 2018.
   1.1. THE TYPE OF SURVEY IS A BOUNDARY SURVEY.
   1.2. THE BOUNDARY DETERMINATION CATEGORY IS DEPENDENT RESURVEY.
   1.3. THE ACCURACIES ARE AS FOLLOWS:

HORIZONTAL CONTROL	CLASS "A-2"
VERTICAL CONTROL	CLASS "V-2"
BOUNDARY	CLASS "A-2"

2. THE COORDINATES AND ELEVATIONS DEPICTED ON THE PLAN REPRESENT THE NAD '83 AND THE NAVD '88 DATUMS. COORDINATES WERE ESTABLISHED ON THE SITE BASED UPON GPS OBSERVATIONS TAKEN ON MAY 2021 USING TRIMBLE GNSS RTK R10 RECEIVERS AND SOLUTIONS PROVIDED THROUGH THE KEYNET NETWORK.
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TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS DEPICTED AND NOTED HEREON.

1/21/22

DAVID A. CARICCHIO, P.L.S. No. 70036 DATE
ALFRED BENESCH & COMPANY, GLASTONBURY, CONNECTICUT
(not valid without original signature and embossed seal)

STATE OF CONNECTICUT · DAVID A. CARICCHIO · No. 70036 · LICENSED LAND SURVEYOR

REVISIONS		
No.	DATE	DESCRIPTION

SURVEY BOOK: 21-01
SURVEYOR: PC
DRAWN: DAC
CHECKED: RS
APPROVED: WW

SCALE: HORZ.: 1" = 50'
VERT.:
SURVEY DATUM: HORZ.: NAD 1983
VERT.: NAVD 1988

GRAPHIC SCALE 50 0 25 50

Prepared By:

benesch
Alfred Benesch & Company
120 Hebron Avenue, 2nd Floor
Glastonbury, Connecticut 06033
Phone (860) 633-8341, Fax: (860) 633-1068
www.benesch.com

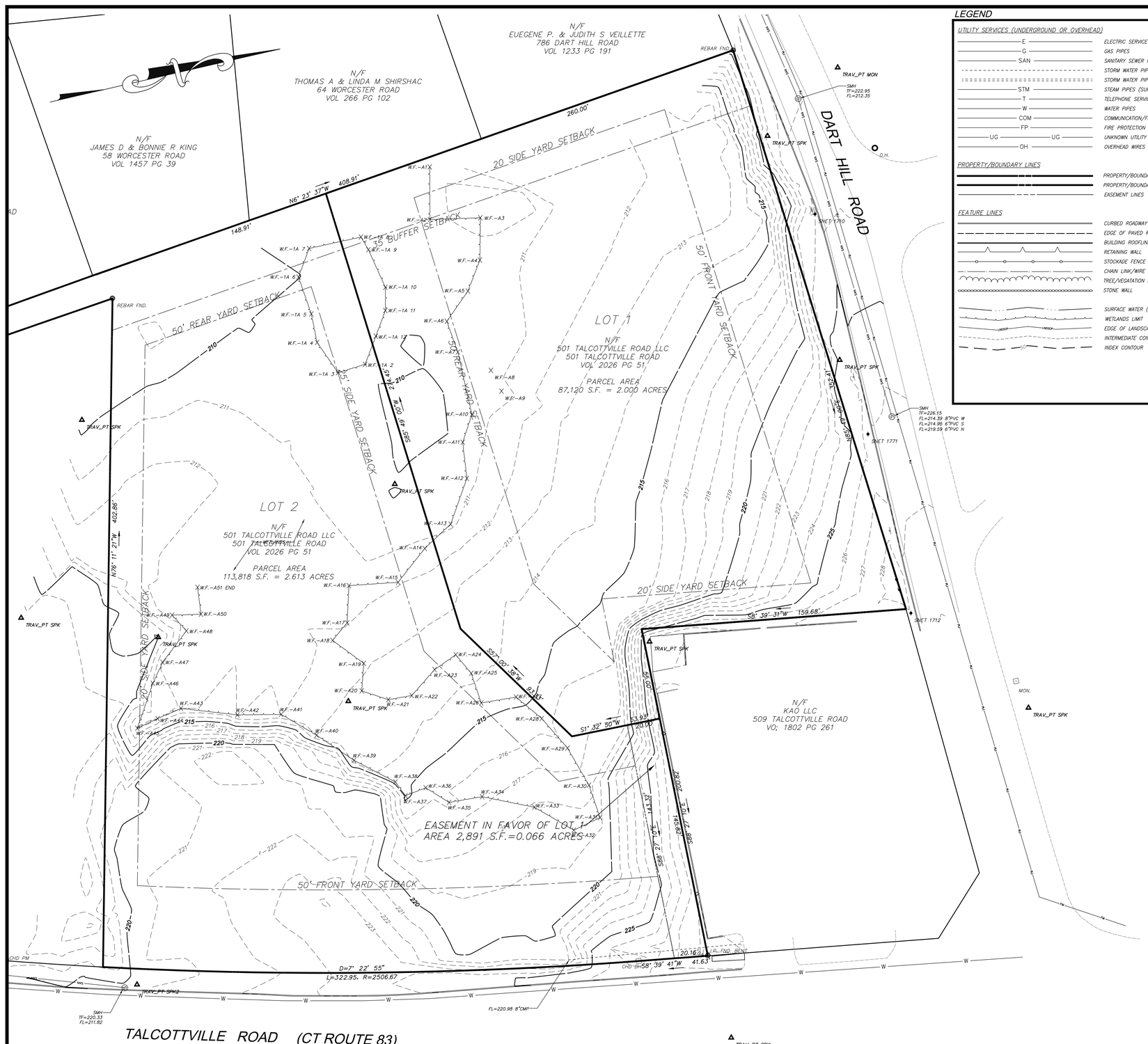
SUBDIVISION PLAN
PREPARED FOR
501 TALCOTTVILLE ROAD LLC
501 TALCOTTVILLE ROAD (CT ROUTE 83) & DART HILL ROAD
VERNON CONNECTICUT

PROJ. No.: 70557.00
DATE: JAN 2022

SV.01

PAPER SPACE LAYOUT NAME:
TWIST/VIEW:
VIEW NAME:
LAYER MANAGER NAME:
PLOT TABLE: STB

File Location/Name - Y:\Glastonbury\70500s\70557.00_Basile_Vernon\Survey\ACAD\70557 SUBDIVISION.dwg
Date of Plot: January 21, 2022 - 2:56 PM



LEGEND

UTILITY SERVICES (UNDERGROUND OR OVERHEAD)

E	ELECTRIC SERVICE
G	GAS PIPES
SAN	SANITARY SEWER PIPES
	STORM WATER PIPES (LESS THAN 12")
	STORM WATER PIPES (12" OR LARGER)
STM	STEAM PIPES (SUPPLY & COND.)
T	TELEPHONE SERVICE
W	WATER PIPES
COM	COMMUNICATION/FIBER OPTIC SERVICE
FP	FIRE PROTECTION PIPES
UG UG	UNKNOWN UTILITY SERVICE
OH	OVERHEAD WIRES

PROPERTY/BOUNDARY LINES

	PROPERTY/BOUNDARY LINES (CLASS A-2)
	PROPERTY/BOUNDARY LINES (CLASS D)
	EASEMENT LINES

FEATURE LINES

	CURBED ROADWAY
	EDGE OF PAVED ROAD/DRIVE
	BUILDING ROOFLINE (AERIAL PHOTOS)
	RETAINING WALL
	STOCKADE FENCE
	CHAIN LINK/WIRE FENCE
	TREE/VEGATATION LINE
	STONE WALL
	SURFACE WATER (WATERCOURSE)
	WETLANDS LIMIT
UDOP UDOP	EDGE OF LANDSCAPING
	INTERMEDIATE CONTOUR
50	INDEX CONTOUR

SYMBOL LEGEND

CATCH BASIN; ROUND DRAIN; SQUARE DRAIN; STORM DRAIN MANHOLE; ELECTRIC MANHOLE; SANITARY MANHOLE; STEAM MANHOLE; TELEPHONE MANHOLE; WATER MANHOLE; MANHOLE (OF UNKNOWN TYPE); HAND HOLE (SQ. / REC.); W.G. WATER VALVE; G.G. GAS VALVE; HYDRANT; COMBO STANDPIPE; GUY WIRE; SIGN (SINGLE POST); SIGN (DOUBLE POST); BORING (AS DRILLED); BORING (AS STAKED); x 427.3 SPOT ELEVATION; W.F.-# WETLANDS FLAG; PROPERTY MONUMENT; UTILITY MONUMENT (SET AS 2' OFFSET); IRON PIPE OR REBAR FOUND; IRRIGATION CONTROL BOX; EMERGENCY PHONE; TRAFFIC CONTROLLER CABINET; UTILITY POLE; UTILITY POLE W/ LIGHT; STREET LIGHT; LIGHT POST; BOLLARD LIGHT; BOULDER / ROCK; CONIFER SHRUB; DECIDUOUS SHRUB; DECIDUOUS TREE (SAPLING); DECIDUOUS TREE; CONIFER TREE

ABBREVIATIONS

A/C	AIR CONDITIONER
AT&T	AMERICAN TELEPHONE & TELEGRAPH COMPANY
BIT.	BITUMINOUS
BLK.	BLACK
CB	CATCH BASIN
COM	COMMUNICATION
CON.	CONIFER
CONC.	CONCRETE
CNG	CONNECTICUT NATURAL GAS
CL	CENTERLINE
CLF	CHAIN LINK FENCE
CL&P	CONNECTICUT LIGHT & POWER COMPANY
CP	CONTROL POINT
DEC.	DECIDUOUS
DMH	DRAINAGE MANHOLE
E	EAST OR ELECTRIC
EL.	ELECTRIC
ELEV	ELEVATION
EMH	ELECTRIC MANHOLE
F.L.	FLOW LINE
FND.	FOUND
GRAN.	GRANITE
GSTC.	GRANITE STONE CURB
HELCO	HARTFORD ELECTRIC COMPANY
HYD.	HYDRANT
H.H.	HAND HOLE
L.P.	LIGHT POLE
MH	MANHOLE
M	METER
M.W.	MONITOR WELL
N	NORTH
NAD	NORTH AMERICAN DATUM
NAVD	NATIONAL AMERICAN VERTICAL DATUM
NE	NORTHEAST
N/F	NOW OR FORMERLY
NW	NORTHWEST
PVC	POLYVINYL CHLORIDE
P.I.V.	POST INDICATOR VALVE
RET.	RETAINING
RCP	REINFORCED CONCRETE PIPE
R.L.	RAIN LEADER
S	SOUTH OR SUPPLY
SE	SOUTHEAST
SW	SOUTHWEST
SAN.	SANITARY
SMH	SANITARY MANHOLE
SNET	SOUTHERN NEW ENGLAND TELEPHONE
SQ.	SQUARE
STM	STEAM
TMH	TELEPHONE MANHOLE
TEL.	TELEPHONE
T.F.	TOP OF FRAME
UNK.	UNKNOWN
W	WATER OR WEST
W.G.	WATER GATE

SURVEY NOTES

1. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300B-1 THRU 20-300B-20 AND THE "MINIMUM STANDARDS OF ACCURACY, CONTENT & CERTIFICATION FOR SURVEYS AND MAPS, AS AMENDED OCTOBER 26, 2018.
   1.1. THE TYPE OF SURVEY IS A TOPOGRAPHIC AND GENERAL LOCATION SURVEY.
   1.2. THE ACCURACIES ARE AS FOLLOWS:

HORIZONTAL CONTROL	CLASS "A-2"
VERTICAL CONTROL	CLASS "V-2"
TOPOGRAPHIC	CLASS "T-2"

2. THE COORDINATES AND ELEVATIONS DEPICTED ON THE PLAN REPRESENT THE NAD '83 AND THE NAVD '88 DATUMS. COORDINATES WERE ESTABLISHED ON THE SITE BASED UPON GPS OBSERVATIONS TAKEN ON MAY 2021 USING TRIMBLE GNSS RTK R10 RECEIVERS AND SOLUTIONS PROVIDED THROUGH THE KEYNET NETWORK.
3. UNDERGROUND UTILITIES (IF DEPICTED) HAVE BEEN COMPILED, IN PART, BASED UPON INFORMATION FURNISHED BY OTHERS. THIS INFORMATION IS TO BE CONSIDERED APPROXIMATE AND ALFRED BENESCH & COMPANY DOES NOT TAKE RESPONSIBILITY FOR SUBSEQUENT ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO THIS PLAN AS A RESULT. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCES OF WHICH ARE UNKNOWN TO ALFRED BENESCH & COMPANY. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO ANY CONSTRUCTION. CALL "CALL BEFORE YOU DIG" 1-800-922-4455.
4. THE SUBJECT PROPERTY'S CURRENT DEED CAN BE FOUND IN VOLUME 2026 PAGE 51 OF THE CITY OF VERNON LAND RECORDS.
5. THE PROPERTY IS LOCATED IN THE "COMMERICAL" ZONE PER TOWN.
6. THE PROPERTY LIES WITHIN THE "ZONE 'X' – AREAS DETERMINED TO BE OUTSIDE THE 500 YEAR FLOODPLAIN. AND IN ZONE AE BASE FLOOD ELEVATIONS DETERMINED (BASE FLOOD ELEVATION =210" PER THE FEMA FLOOD INSURANCE RATE MAP TOWN OF VERNON TOLLAND COUNTY COMMUNITY PANEL 0901310005C MAP REVISED AUGUST 9, 1999.
7. TOTAL PARCEL AREA IS 200,938 SQ. FT. = 4.613 AC.

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS DEPICTED AND NOTED HEREON.

STATE OF CONNECTICUT · DAVID A. CARICCHIO · No. 70036 · LICENSED LAND SURVEYOR

1/21/22

DAVID A. CARICCHIO, P.L.S. No. 70036 — DATE
ALFRED BENESCH & COMPANY, GLASTONBURY, CONNECTICUT
(not valid without original signature and embossed seal)

REVISIONS		
No.	DATE	DESCRIPTION

SURVEY BOOK: 21-01
SURVEYOR: PC
DRAWN: DAC
CHECKED: RS
APPROVED: WW

SCALE: HORZ.: 1" = 30'
VERT.:
SURVEY DATUM: HORZ.: NAD 1983
VERT.: NAVD 1988

GRAPHIC SCALE 30 0 30 / 15

Prepared By:

benesch

Alfred Benesch & Company
100 Hebron Avenue - 2nd Floor
Glastonbury, Connecticut 06033
Phone (860) 633-8341, Fax: (860) 633-1068
www.benesch.com

TOPOGRAPHIC SURVEY

PREPARED FOR

501 TALCOTTVILLE ROAD LLC
501 TALCOTTVILLE ROAD (CT ROUTE 83)
& DART HILL ROAD

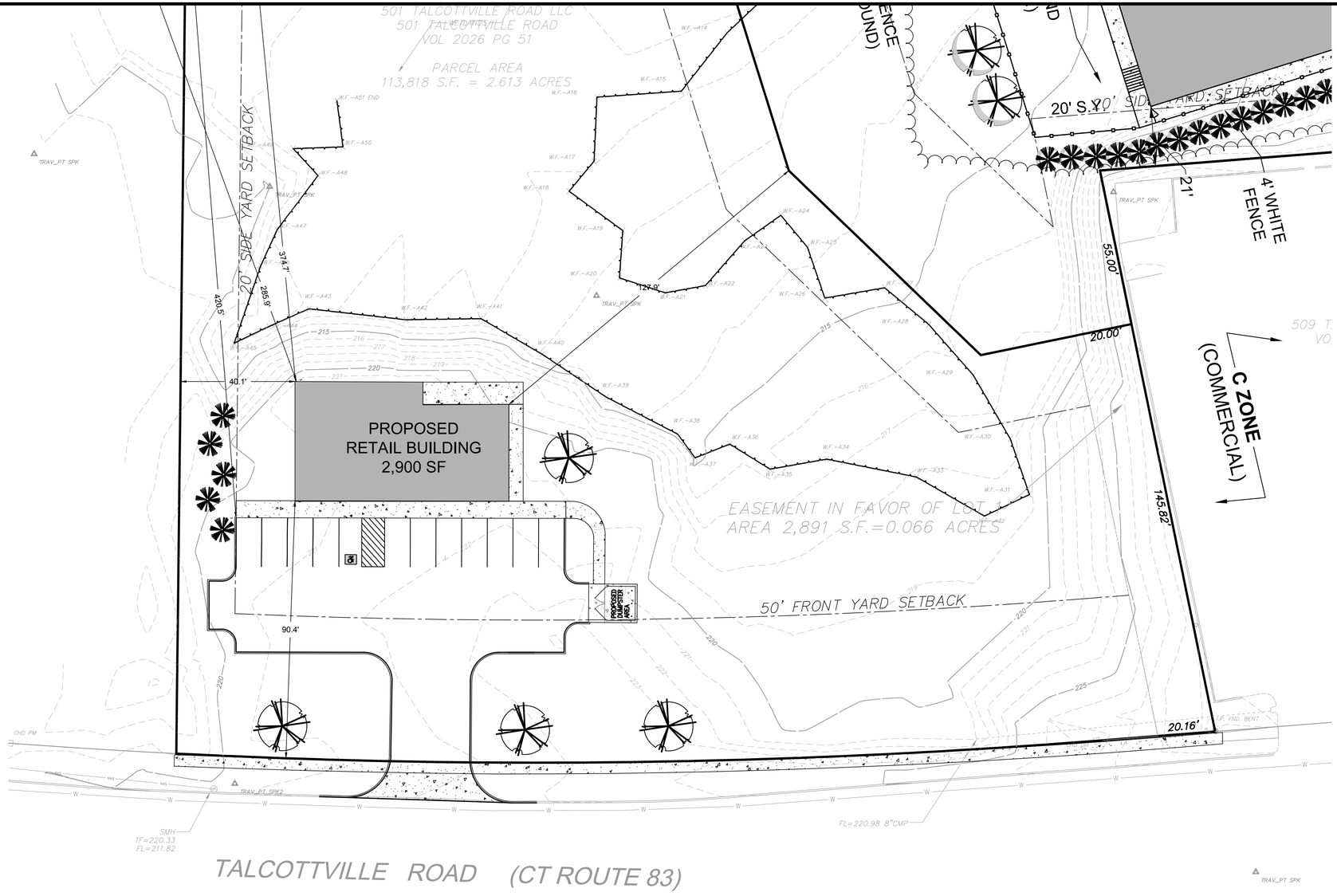
VERNON CONNECTICUT

PROJ. No.: 70557.00
DATE: MAY 2021

SV.02

PAPER SPACE LAYOUT NAME:
TWISTVIEW:
VIEW NAME:
LAYER MANAGER NAME:
PLOT TABLE: STB

File Location/Name - Y:\Glastonbury\70500S\70557.00_Basle_Vernon\Survey\ACAD\70557 SUBDIVISION.dwg
Date of Plot: January 21, 2022 - 2:58 PM



ZONING TABLE

501 TALCOTTVILLE ROAD M/B/L 09/0007/0001D ZONE: C (COMMERCIAL)			
PARCEL 2: RETAIL			
ITEM	REQUIREMENTS	EXISTING CONDITIONS LOT 2	PROPOSED CONDITIONS LOT 2
MIN. LOT AREA	22,000 SF	113,818 SF	113,818 SF
MIN. LOT FRONTAGE	100 FT	365 FT	365 FT
FRONT YARD SETBACK	50 FT	N/A	90 FT
SIDE YARD SETBACK	20 FT	N/A	40 FT
REAR YARD SETBACK	50 FT	N/A	286 FT
MIN. BUILDING SETBACK FROM RESIDENTIAL STRUCTURE	200 FT OR AS APPROVED BY SPECIAL PERMIT	N/A	375 FT
MIN. PARKING SETBACK FROM RESIDENTIAL STRUCTURE	100 FT OR AS APPROVED BY SPECIAL PERMIT	N/A	420 ft
MAX. IMPERVIOUS COVERAGE	60% OR AS APPROVED BY SPECIAL PERMIT	0%	10%
MAX. BUILDING HEIGHT	35 FT OR AS APPROVED BY SPECIAL PERMIT	N/A	< 35'
PARKING SPACES	RETAIL PARKING ONE SPACE PER 250 S.F. FLOOR AREA 2900 SF/250 = 12 SPACES	0	12

20 0 20 40

1" = 20'

PLAN REFERENCE

SITE INFORMATION FROM PLAN ENTITLED: "SUBDIVISION PLAN, PREPARED FOR 501 TALCOTTVILLE ROAD LLC, 501 TALCOTTVILLE ROAD (CT ROUTE 83) & DART HILL ROAD, VERNON, CONNECTICUT," SCALE 1" = 30', DATED JANUARY, 2022, BY ALFRED BENESCH & CO, 120 HEBRON AVENUE, GLASTONBURY, CT

Prepared by:
benesch
Alfred Benesch & Company
120 Hebron Ave 2nd Floor
Glastonbury, Connecticut 06033
860-633-8341

Prepared for:

BASILE SUBDIVISION LOT 2

501 TALCOTTVILLE ROAD VERNON, CT

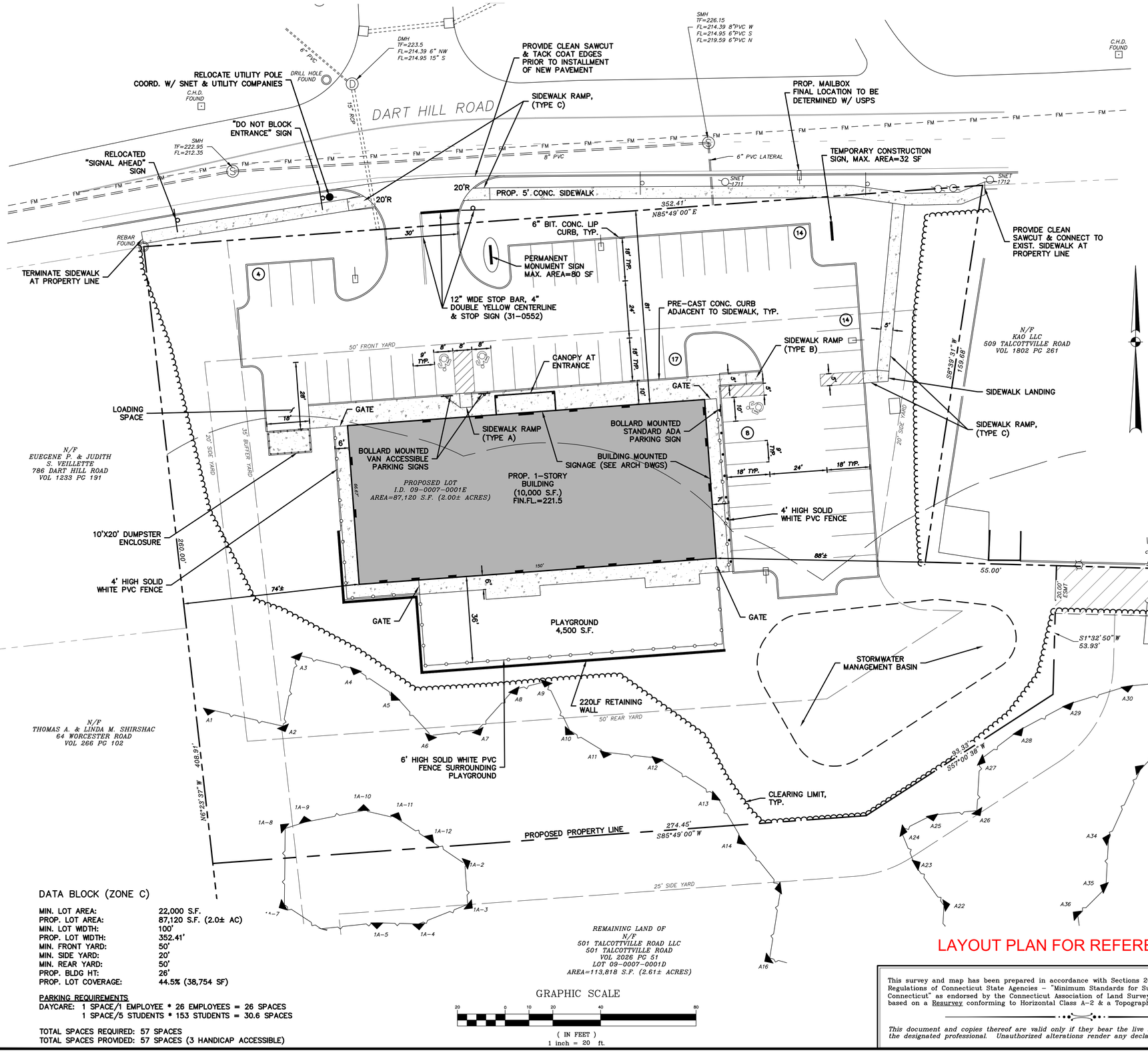
DATE:	REVISION:
2022.01.20	REVISION: 0

PROJECT NO.: 70557.51
SCALE: AS SHOWN
DATE: 01.20.2022
DRAWN BY: LAW
CHECKED BY: RGS

CONCEPT PLAN

FOR REFERENCE ONLY

DRAWING NO.:
CP-1



DATA BLOCK (ZONE C)

MIN. LOT AREA:	22,000 S.F.
PROP. LOT AREA:	87,120 S.F. (2.0± AC)
MIN. LOT WIDTH:	100'
PROP. LOT WIDTH:	352.41'
MIN. FRONT YARD:	50'
MIN. SIDE YARD:	20'
MIN. REAR YARD:	50'
PROP. BLDG HT:	26'
PROP. LOT COVERAGE:	44.5% (38,754 SF)

PARKING REQUIREMENTS
DAYCARE: 1 SPACE/1 EMPLOYEE * 26 EMPLOYEES = 26 SPACES
1 SPACE/5 STUDENTS * 153 STUDENTS = 30.6 SPACES

TOTAL SPACES REQUIRED: 57 SPACES
TOTAL SPACES PROVIDED: 57 SPACES (3 HANDICAP ACCESSIBLE)

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

LAYOUT PLAN FOR REFERENCE ONLY

This survey and map has been prepared in accordance with Sections 20-300b-1 thru 20-300b-20 of the Regulations of Connecticut State Agencies – "Minimum Standards for Surveys and Maps in the State of Connecticut" as endorsed by the Connecticut Association of Land Surveyors, Inc. It is a Property Survey based on a Resurvey conforming to Horizontal Class A-2 & a Topographic Survey conforming to Class T-2.

This document and copies thereof are valid only if they bear the live signature and embossed seal of the designated professional. Unauthorized alterations render any declaration hereon null and void.

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

Reference Maps:

1. "Boundary Survey Prepared for 501 Talcottville Road LLC, 501 Talcottville Road (CT Route 83) & Dart Hill Road, Vernon, Connecticut" Sheet SV.01, Scale: 1"=50' Date: May 2021 by Alfred Benesch & Company.
2. "Topographic Survey Prepared for 501 Talcottville Road LLC, 501 Talcottville Road (CT Route 83) & Dart Hill Road, Vernon, Connecticut" Sheet SV.02Scale: 1"=30' Date: May 2021 by Alfred Benesch & Company.

Notes:

1. Portion of the parcel is located in inland wetlands as delineated by Rema Ecological Services per reference map #2.
2. Proposed lot does not lie within a special flood hazard area per "FEMA flood insurence rate map, town of Vernon, Connecticut community panel number 0901310005C, revised August 9, 1999".
3. Horizontal and vertical datums are based upon map references prepared by Alfred Benesch & Company.
4. All underground utility locations on this plan are approximate and may not be complete. Anyone using this information without verifying the locations does so at their own risk. No construction will be done on this site prior to utility mark out. "Call Before You Dig 1-800-922-4455".
5. Boundary and existing conditions shown hereon are based on map references prepared by Alfred Benesch & Company.

LEGEND

-O-	EXISTING UTILITY POLE
UG	PROPOSED UNDERGROUND ELECTRIC
G	EXISTING GAS LINE
G	PROPOSED GAS LINE
W	EXISTING WATER LINE
W	PROPOSED WATER LINE
FP	PROPOSED FIRE PROTECTION LINE
	EXISTING CATCH BASIN
	PROPOSED CATCH BASIN
	EXISTING DRAINAGE MANHOLE
	PROPOSED DRAINAGE MANHOLE
	EXISTING STORM SEWER
	PROPOSED STORM SEWER
RL	PROPOSED ROOF LEADER
S	EXISTING SANITARY MANHOLE
	EXISTING SANITARY SEWER
FM	EXISTING SANITARY FORCE MAIN
S	PROPOSED SANITARY SEWER
	EXISTING SIGN
	PROPOSED SIGN
	EXISTING IRON PIN (FOUND)
	PROPOSED IRON PIN (TO BE SET)
	EXISTING MONUMENT (FOUND)
135x5	EXISTING SPOT GRADE
135.5	PROPOSED SPOT GRADE
136	EXISTING CONTOUR
136	PROPOSED CONTOUR
	LIMIT OF WETLANDS
	PROPERTY LINE
	EASEMENT LINE
	BUILDING LINE
	STAKED HAYBALES OR SILT FENCE

RUSSO SURVEYORS·ENGINEERS
SERVING CT & MA
J.R. Russo & Associates, LLC
1 Shoham Rd East Windsor, CT 06088 • CT 860.633.0569 • MA 413.785.1158
www.jrrusso.com • info@jrrusso.com

Applicant
Vernon Development LLC
56 East Main Street
Avon, Connecticut 06001

REVISIONS

BY: LF/TAC	CHK: JEU

The Learning Experience
Property Of
501 Talcottville Road, LLC
501 Talcottville Road
Vernon, Connecticut 06010
Parcel ID: 09-0007-0001D (Zone: C)

Layout Plan

DATE 1-11-22
SCALE 1"=20'
JOB NUMBER 2021-083
SHEET 4 of 12

S:\Acad\2021 Civil 3D\2021-083 Vernon Development - 501 Talcottville Rd\Russo Drawings\2021-083.dwg

From: James Basile
To: McGregor, George
Subject: [EXTERNAL] Re: 501 Talcottville rd
Date: Monday, March 21, 2022 9:15:40 AM

CAUTION: This Email is from an EXTERNAL source. Ensure you trust this sender before clicking on any links or attachments.

Hi George,

My apologies. Yes. In parallel, please consider this a formal request to open the public hearing for the subdivision site plan on April 21st and grant an extension to May 6, 2022, to all for it to be continued in the May meeting.

Thank you,

James Basile
Basile Enterprises Inc.
P.O. Box 270361
West Hartford, CT 06127
Phone (860) 202-9540
Fax (860) 584-9491
basile.enterprises@comcast.net

> On Mar 17, 2022, at 11:13 AM, Tim Coon <tcoon@jrrusso.com> wrote:
>
> Consider this a formal request to open the Public Hearing on April 21st and grant an extension to the time to May 6, 2022, to allow for it to be continued to the May meeting.
> Thanks

TOWN OF VERNON

55 West Main St., VERNON, CT 06066-3291
(860) 870-3640
gmcgregor@vernon-ct.gov

OFFICE OF THE
TOWN PLANNER

MEMORANDUM

TO: Planning & Zoning Commission

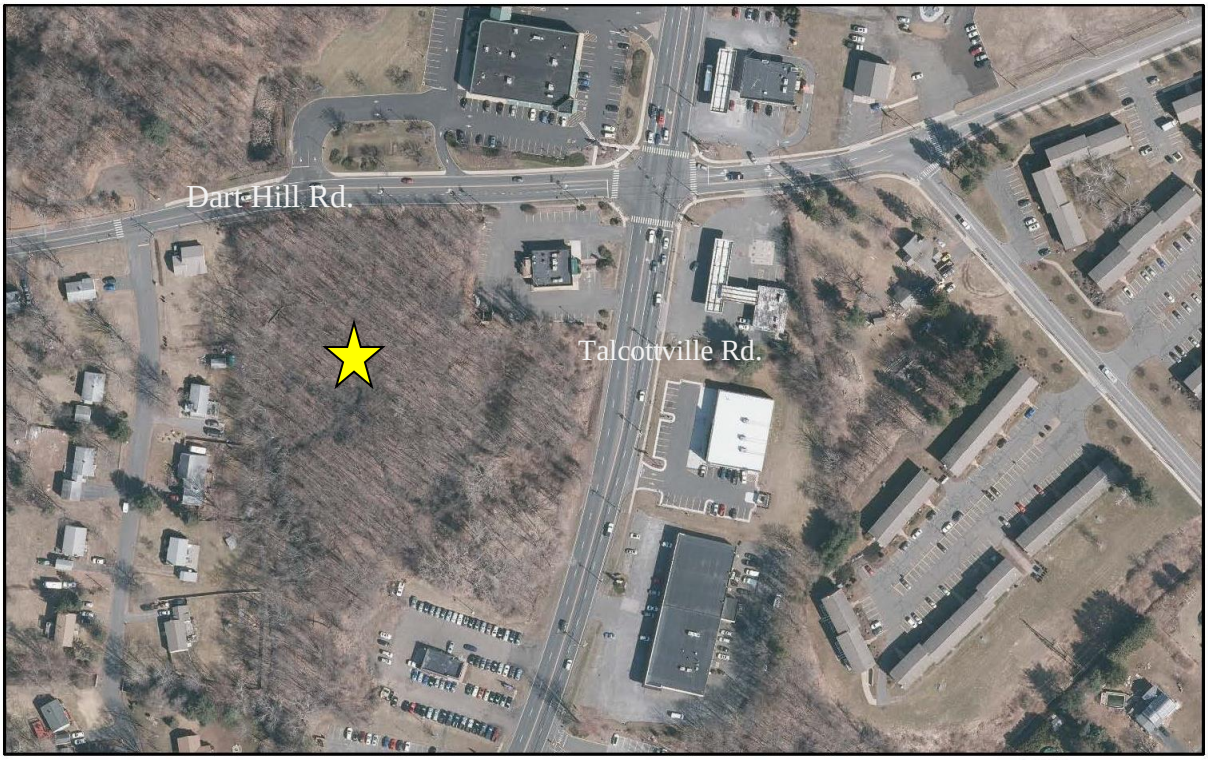
FROM: George K. McGregor, AICP, Town Planner

SUBJECT: PZ 2022-06, 501 Talcottville Rd. Re-Subdivision

DATE: March 3, 2022

Request

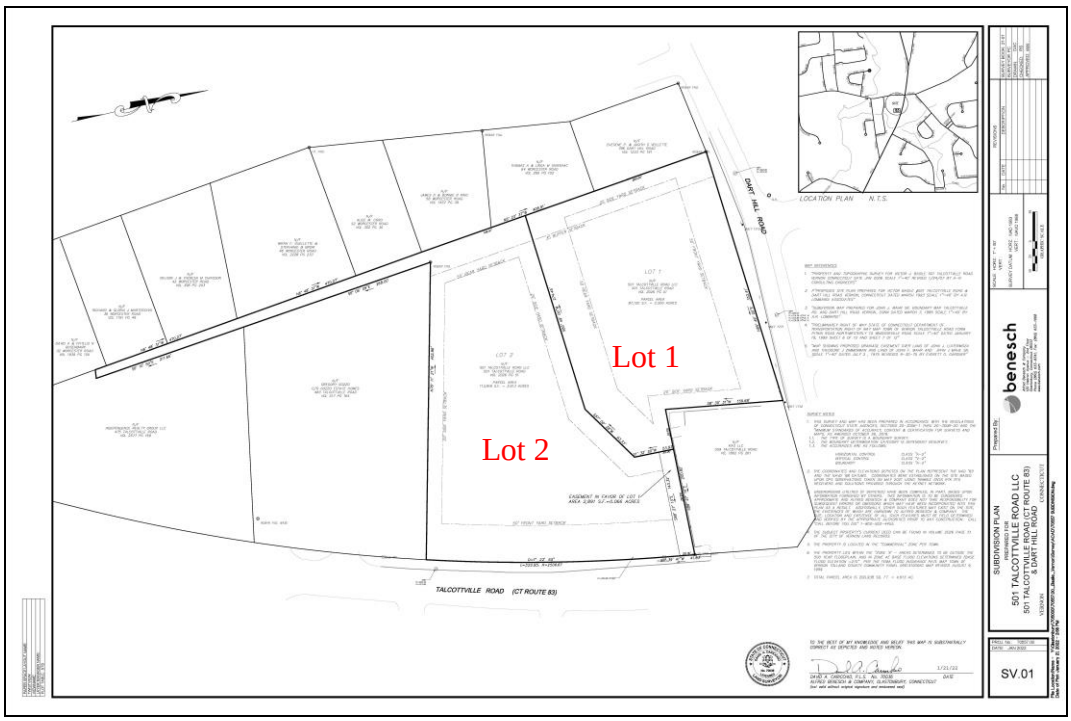
PZ-2022-06, 501 Talcottville Rd. An Application of 501 Talcottville Rd., LLC to permit the re-subdivision of land into one additional parcel, located at 501 Talcottville Rd. (Tax Map 09, Block 0007, Parcel 0001D). The property is zoned Commercial.



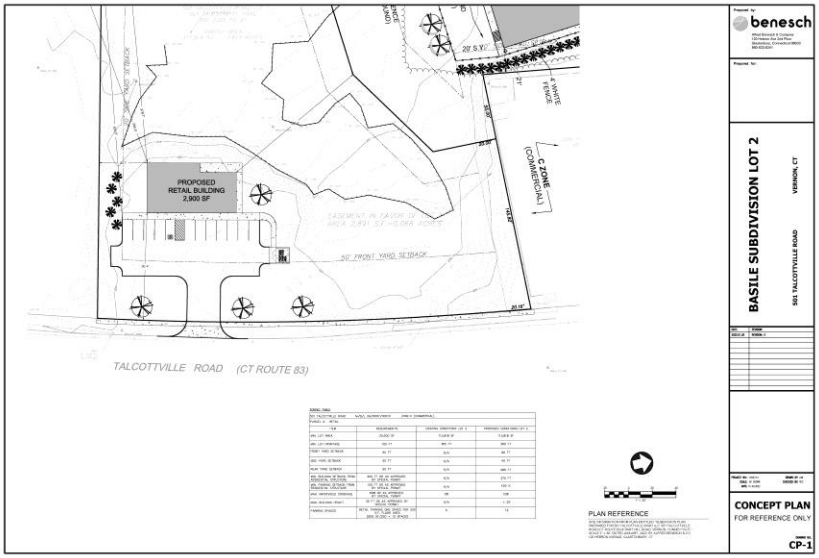
Site Location

Summary

The property owner requests approval to create one additional 2.6 parcel from a parent 4.6-acre tract addressed as 501 Talcottville Rd. A previous subdivision occurred on the parent parcel; therefore, no free cut is available and, under the town regulations, re-subdivision is permitted after a public hearing and decision by the Planning & Zoning Commission. This application is related to PZ 2022-05, the site plan and special permit application for a day care facility at 501 Talcottville Rd.



It appears that the front portion of the new parcel, fronting on Talcottville Rd., is available for development due to the preponderance of wetlands on the balance of the land. The Applicant has provided a conceptual commercial layout (*right*) to demonstrate such possibilities. Any site plan on the new parcel would require a site plan review, potentially special permits, and certainly a new wetland permitting process. ***Note: this report does not represent a review, approval, or endorsement of the conceptual plan.***



Staff Review

The Zoning Official has indicated that the new parcel appears to meet zoning regulations, as does the left-over parent tract.

Creating a new legal lot of record conveys certain future entitlements on the property. As evidenced from the ongoing Inland Wetland Commission **(IWC 2022-01)** review of the parent tract, there are potential significant impacts on the wetlands from the development of commercial projects in proximity. A re-subdivision of this property will introduce, in all likelihood, additional potential wetland impacts. Any revisions to the site plan review contained in PZ 2022-05 (as a result of the Inland Wetland review) could affect the proposed new subdivision parameters in a manner not known at the time of this report.

Note: The IWC continued its public hearing until March 22, 2022 so that the Town could engage a third-party wetland professional to review and opine on the applicant's submission.

State Statute 8.26 requires the Planning & Zoning Commission to await the recommendation and decision from the Inland Wetlands Commission for any application which "involves land regulated as an inland wetland." The Inland Wetland Commission has yet to make its finding on that application. For the reasons cited above, Staff recommends a continuation of this hearing until April 7, 2022 and extension from the applicant, as appropriate.

Draft motions may be delivered to the PZC under separate cover.

Other Business

Public Comments Received

Gately, Shaun

From: Judith Veillette <juditta1941@outlook.com>
Sent: Tuesday, April 12, 2022 8:16 PM
To: McGregor, George
Subject: [EXTERNAL] 501 Talcottville Road Daycare Center

CAUTION: This Email is from an EXTERNAL source. Ensure you trust this sender before clicking on any links or attachments.

Dear George,

I still think this is a bad idea-

Filling in wetlands could dry up our wells on Worcester Road
Many of our backyards and basements will get flooded
The construction so close to our homes could shake our houses to their foundations-some could collapse

I wish they had planned this project to front on Talcottville Road instead of invading the wooded area and wetlands so close to our homes.

Maybe we can't stop this project, but I can't stop thinking about the repercussions.

Thank you for your time.

Sincerely,

Judith Veillette
786 Dart Hill Road
(corner of Worcester and Dart Hill)