

265 Wadleigh Falls Road Lee, NH 03861 Ph(603)292-5787  
WWW.FARWELLENGINEERING.COM

Barrington Planning Board  
Attn: Ms. Barbara Irvine  
333 Calef Highway  
PO Box 660  
Barrington, NH 03825

March 19, 2020

**Re: Wildlife Encounters  
270 Beauty Hill Road  
Tax Map 249 Lot 32  
Tax Map 250 Lot 133  
FES #1808**

Dear Ms. Irvine:

Farwell Engineering Services, LLC (FES) is pleased to submit this letter and revised plans on behalf of Mr. Derek Small of Wildlife Encounters, LLC located at the above noted address. This is in response to plan review letter by DuBois and King dated October 2, 2019.

1. We recommend that the applicant provide a site distance plan and profile in accordance with Site Plan Review Regulations 3.5.9.

Response: We have added a plan and profile of the sight (C-4) distance line of sight in both directions from the proposed end of the driveway. There is over 400 ft of safe all season sight distance.

2. We recommend that the applicant provide the notes on the plan specified in Site Plan Review Regulations 3.2.10.

Response: We have add all notes that are required under site plan review regulations.

3. We recommend that the applicant revise the plans so that the private driveway maximum grade does not exceed 9%.

Response: The maximum slope of the driveway is proposed to be 9.7% This is less than the 10% required by subdivision regulation 12.3.2 (4). Maximum grade for a driveway is 10%.

4. We recommend that the applicant provide a legend that shows and defines each symbol and linetype used on the plans in accordance with Site Plan Review Regulations 3.2.8.

Response: We have updated the legend to include all linetypes and symbols.

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5. Sheet C-2. We recommend that the applicant revise the proposed drainage pipe to meet the requirements of Site Plan Review Regulations 4.7.7(1), which requires a minimum pipe diameter of 15".

Response: The drainage pipe leaving the detention basin is used to control the flow leaving the detention basin and should be a 12" diameter pipe. We request a waiver if required.

6. Sheet C-2. We recommend that the applicant revise the plan to show all proposed temporary erosion protection measures during construction (silt fence, hay bales, etc.) on the plan and their associated details, in accordance with Site Plan Review Regulations 3.5.3.

Response: The review engineer did not have the complete plan set as this was intended to review the drainage only. The silt fence and silt sock detail is on details sheet D-1, and shown on the site plan.

7. Sheet C-2, Drainage Post- Development Drawing DR-2. The proposed grading and stormwater flow appears to flow directly through a line that is assumed to denote an existing rock retaining wall. It is unclear if stormwater will flow through the wall or if the wall will act as a barrier. We recommend that the applicant clarify the drainage flow pattern in this area and consider adding a defined flow path without a rock wall obstruction.

Response: The stonewall is not a barrier. The grades send the stormwater in this direction and water flows through the stone wall.

8. Sheet C-2. We recommend that the applicant perform test pits to confirm that the proposed stormwater system retention is above the estimated seasonal high water table (ESHWT) elevations.

Response: We have performed a test pit in the area of the detention basin. ESHWT was at 24". The pond bottom is above the ESHWT.

9. Sheet D-2. Details. We recommend that the applicant provide a detail of the stormwater retention pond that depicts the embankment section, embankment material compaction and gradation requirements, limits of riprap slope stabilization, and inverts of the emergency overflow spillway.

Response: We have provided grading information as well as compaction information for the detention pond. This is found on the detail sheet D-3 and the site plan C-2.

10. Sheet D-2. Details. We recommend that the applicant provide a pipe trench detail that depicts the compaction and material requirements for the stormwater drainage.

Response: We have added a trench detail on sheet D-2.

11. Sheet D-2. Details. Outlet Control Structure No. 1 Detail. We recommend that the applicant provide stone bedding wrapped in geotextile for the base of the outlet control structure.

Response: We have added a bedding detail note for the outlet control structure on Sheet D-3.

12. Sheet D-2. Details. We recommend that the applicant provide a typical section for the driveway.

Response: There is a typical section shown the profile sheet.

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13. Drainage Analysis. Riprap Outlet Protection. We recommend that the applicant provide riprap apron and stone sizing calculations in the drainage analysis in accordance with Site Plan Review Regulations 4.7.2(11), and that the required dimensions and stone size are clearly defined on the drawings.

Response: We have provided rip rap sizing calculations to the drainage analysis. The rip rap information is added to the plans on sheet D-3.

14. Drainage Analysis. The outlet control structure (Pond 2P) culvert length and outlet invert elevation does not match Sheet C-2. We recommend that the applicant revise the submitted materials to match.

Response: We have updated the drainage analysis to match the plans.

15. Drainage Analysis. The Table of Contents indicate that AOT worksheets are included in the analysis. No worksheets were provided. We recommend that the applicant revise the drainage analysis to provide stormwater treatment and pre-treatment calculations that meet the requirements of the NH Stormwater Design Manual in accordance with Site Plan Review Regulations 4.7.2(10). We anticipate that the applicant can utilize the grass lined swale as a vegetated treatment swale.

Response: We have provided the pre-treatment analysis for the grass lined swale. The worksheet is included in the drainage analysis.

16. Drainage Analysis. Watershed Plans DR-1 and DR-2. We recommend that the applicant revise the pre- and post-development watershed delineations to both have at least 2 points of analysis into the receiving watershed downstream. For example, the runoff associated with "2S" in the post-development model should be a separate point of analysis so that the effects of the disturbed areas associated with the proposed gravel parking lot can be compared more accurately.

Response: We have revised the drainage analysis to include two study points. We have also elongated the swale to capture additional runoff from the newly proposed 50' x 80' Building window and gravel drive.

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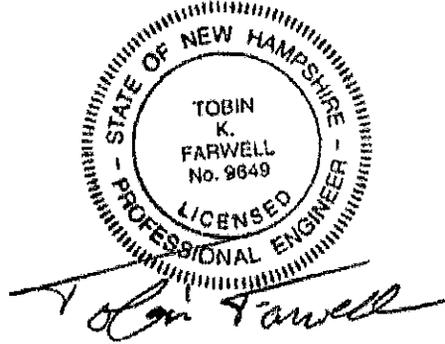
MAR 26 2020

LAND USE OFFICE

Thank you for your time and consideration in this matter. Please contact me if you have additional comments.

Sincerely,

**FARWELL ENGINEERING SERVICES, LLC**



Tobin Farwell, P.E.  
Principal

**ABUTTERS LIST**

MAP / LOT	name and mailing address
239/61	HUBBELL HARVEY 55 HUTCHINSON PKWY LITCHFIELD, CT 06759
249/26	WINTER DOUGLAS & BARBARA A 54 FROST HILL LN BARRINGTON, NH 03825
249/27	ROY TIMOTHY B & AMBER 22 FROST HILL LN BARRINGTON, NH 03825
249/28	MORRISON PAUL 4 ROSS RD BARRINGTON, NH 03825
249/30	ROUNDS JOHN & RONALD 274 BEAUTY HILL RD BARRINGTON, NH 03825
249/31	GRIFFIN JAY DONN-GRIFFIN DEBRA 272 BEAUTY HILL RD BARRINGTON, NH 03825
249/37	NIENHOUSE RALPH 269 BEAUTY HILL RD BARRINGTON, NH 03825
250/34	TICE DYLAN M & AIMEE J 249 BEAUTY HILL RD BARRINGTON, NH 03825
250/34-1	KLOPMAN ANDREA A & ARTHUR W 5226 STATE RT 145 COBBLESKILL, NY 12043
250/35	STOLZENBURG PAUL & CAROLYN 238 BEAUTY HILL RD BARRINGTON, NH 03825
250/36	TJERINA ANTHONY 4/5 INT SANDERS SAMUEL & SARAH 1/10 EA PO BOX 361 BARRINGTON, NH 03825
250/119	TALBOT RICHARD & HEATHER 68 STONE FARM RD BARRINGTON, NH 03825
250/120	PUBLIC SERVICE CO NH PO BOX 270 HARTFORD, CT 06141
250/121	CARLISLE REALTY LLC 73 DURHAM PT RD DURHAM, NH 03824
250/133	COOK PETER C 114 GARRISON ROAD DOVER, NH 03820
250/134	CAMPBELL RICHARD & SARAH PO BOX 500 BARRINGTON, NH 03825

**SURVEYOR:**



**Stonewall SURVEYING**  
Licensed in New Hampshire & Maine  
PO Box 458, Barrington, NH 03825  
t: (603) 664-3900 www.StonewallSurveying.com

**WETLAND SCIENTIST:**

JOSEPH NOEL  
P.O. Box 174  
South berwick, ME 03908  
PH- 207-384-5587

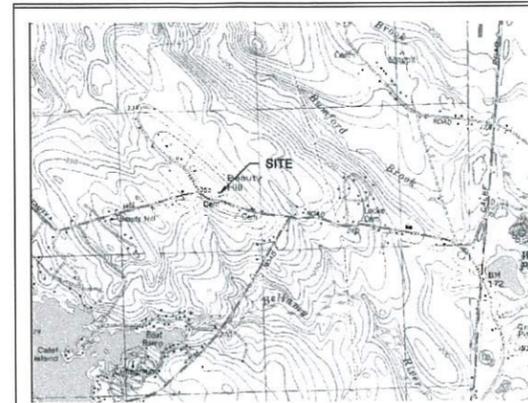
**NOTES- CONTINUED:**

- WATER IS PROVIDED BY ONSITE WELL. SEWER IS SERVICED BY ON SITE LEACHFIELD.
- FEMA INFORMATION PROVIDED ON EXISTING CONDITIONS PLAN.
- THIS PROJECT REQUIRES A SEPTIC PERMIT #  
THIS PROJECT REQUIRES A WETLANDS PERMIT #
- IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT DEFICIENCIES EXIST IN THE APPROVED DESIGN DRAWINGS, THE CONTRACTOR SHALL BE REQUIRED TO CORRECT THE DEFICIENCIES TO MEET THE REQUIREMENTS OF THE REGULATIONS AT NO EXPENSE TO THE TOWN.
- IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION CONTROL MEASURES ARE REQUIRED TO STOP ANY EROSION ON THE CONSTRUCTION SITE DUE TO ACTUAL SITE CONDITIONS, THE OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY EROSION PROTECTION AT NO EXPENSE TO THE TOWN.
- ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE TOWN OF BARRINGTON SITE REVIEW REGULATIONS AND THE LATEST EDITION OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATIONS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

# Site Plan FOR WILDLIFE ENCOUNTERS ECOLOGY CENTER AND FARM SCHOOL

**Property located at:  
270 Beauty Hill Road  
TAX MAP 249, LOT 32  
&  
TAX MAP 250, LOT 133  
Barrington, New Hampshire**

PLANNING BOARD APPROVAL BLOCK



LOCATION PLAN

**LEGEND**

- POORLY DRAINED SOILS
- 2' CONTOUR
- 10' CONTOUR
- STONEWALL
- UTILITY POLE
- EDGE OF GRAVEL
- PROPOSED CONTOUR
- EDGE OF EXISTING PAVEMENT
- SILTY FENCE/SILTY SOXX FARM FENCE
- WETLAND SYMBOL
- EXISTING TREE LINE
- PROPOSED TREE LINE
- TEST PIT LOCATION
- PROPOSED TRAIL
- PROPOSED WOODS TRAIL

**NOTES:**

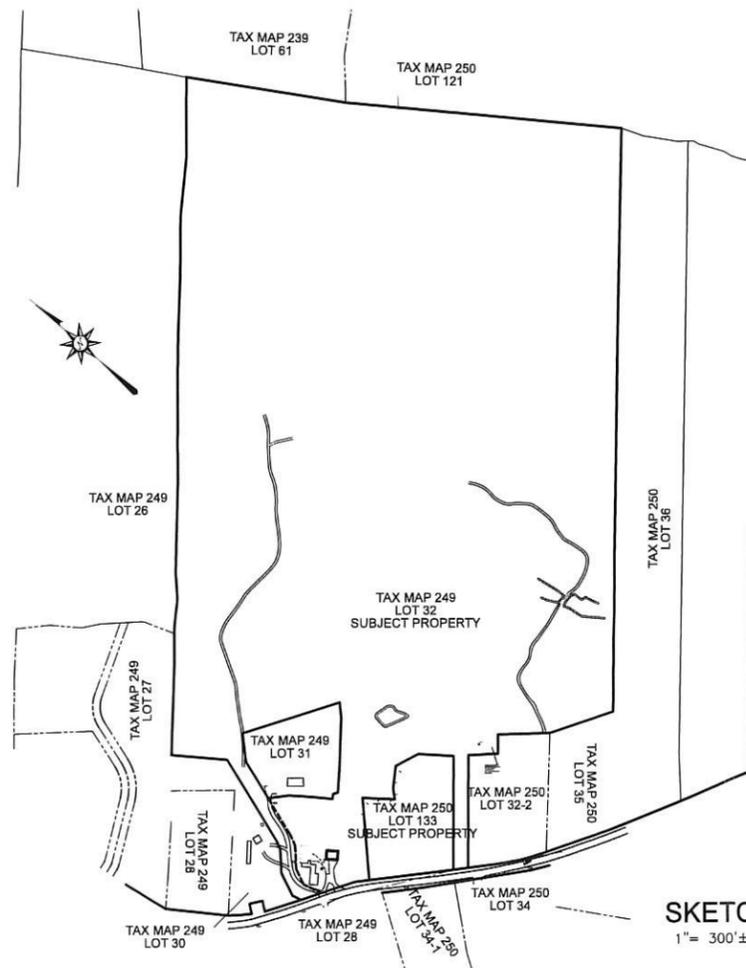
- TAX MAP 249/250 LOT 32/133 75+/- ACRES
- OWNER OF RECORD:  
DWSX2 HOLDINGS LLC  
c/o DEREK SMALL  
S.C.R.D. BOOK 4728 PAGE 370  
DATED JANUARY 22, 2020
- LOT IS ZONED NEIGHBORHOOD RESIDENTIAL  
MINIMUM FRONTAGE: 200 FT  
FRONT BUILDING SETBACK: 40 FT  
SIDE AND REAR SETBACK: 30 FT  
MAXIMUM COVERAGE: 40%
- THE INTENT OF THIS PLAN IS TO CONSTRUCT A DRIVEWAY AND PARKING AREA AND OTHER IMPROVEMENTS INCLUDE DETENTION POND AND SWALE.
- PARKING- GRAVEL PARKING AREA = 20 SPACES.  
PARKING ADJACENT TO ROAD = 12 SPACES.  
EMPLOYEE PARKING - 3 EMPLOYEES  
AND HANDICAP PARKING IS AT RESIDENCE.
- THERE IS ANTICIPATED TO BE 18-20 EVENTS PER WEEK MAXIMUM. THE BUSIEST SEASON IS ANTICIPATED TO BE SUMMER.
- HOURS OF OPERATION ARE BY APPOINTMENT.
- MANURE FOR LIVESTOCK WILL BE COMPOSTED ON THE NORTH EAST PORTION OF THE PROPERTY.
- THE SITE IS CURRENTLY RESIDENTIAL. PROPOSED USE IS FARM SCHOOL.
- LOT COVERAGE 2500 SF/75 ACRES = 0.08%

**WAIVER REQUESTS:**

TOWN OF BARRINGTON SITE PLAN REVIEW REGULATIONS: ARTICLE 4.9.8 PARKING LOT LIGHTING REQUIREMENTS. WE ARE PROPOSING NO LIGHTING FOR THE PARKING AREA.

**CONSTRUCTION TIME TABLE:**

- BARN UNDER CONSTRUCTION - TO BE COMPLETED BY SUMMER OF 2020.
- THE WOODS TRAIL - SPRING OF 2020
- DRIVEWAY PARKING AND DETENTION POND - UNDER CONSTRUCTION SUMMER OF 2020
- CONSTRUCTION TIME TABLE IS SUBJECT TO FUNDING



SKETCH  
1" = 300'±



Google Earth



265 WADLEIGH FALLS ROAD  
LEE, NEW HAMPSHIRE 03861  
PH: 603-292-5787  
WWW.FARWELLENGINEERING.COM



ISSUED FOR: SITE PLAN REVIEW

ISSUE DATE: JUNE 26, 2019

FILE NAME: 1808-DS

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MAR 26 2020

LAND USE OFFICE

NO.	DATE	TOWN REVIEW COMMENTS	TRF	BY
1	3/19/20			

SCALE: 1" = 40'

OWNER:  
DWSX2 HOLDINGS LLC  
C/O DEREK SMALL

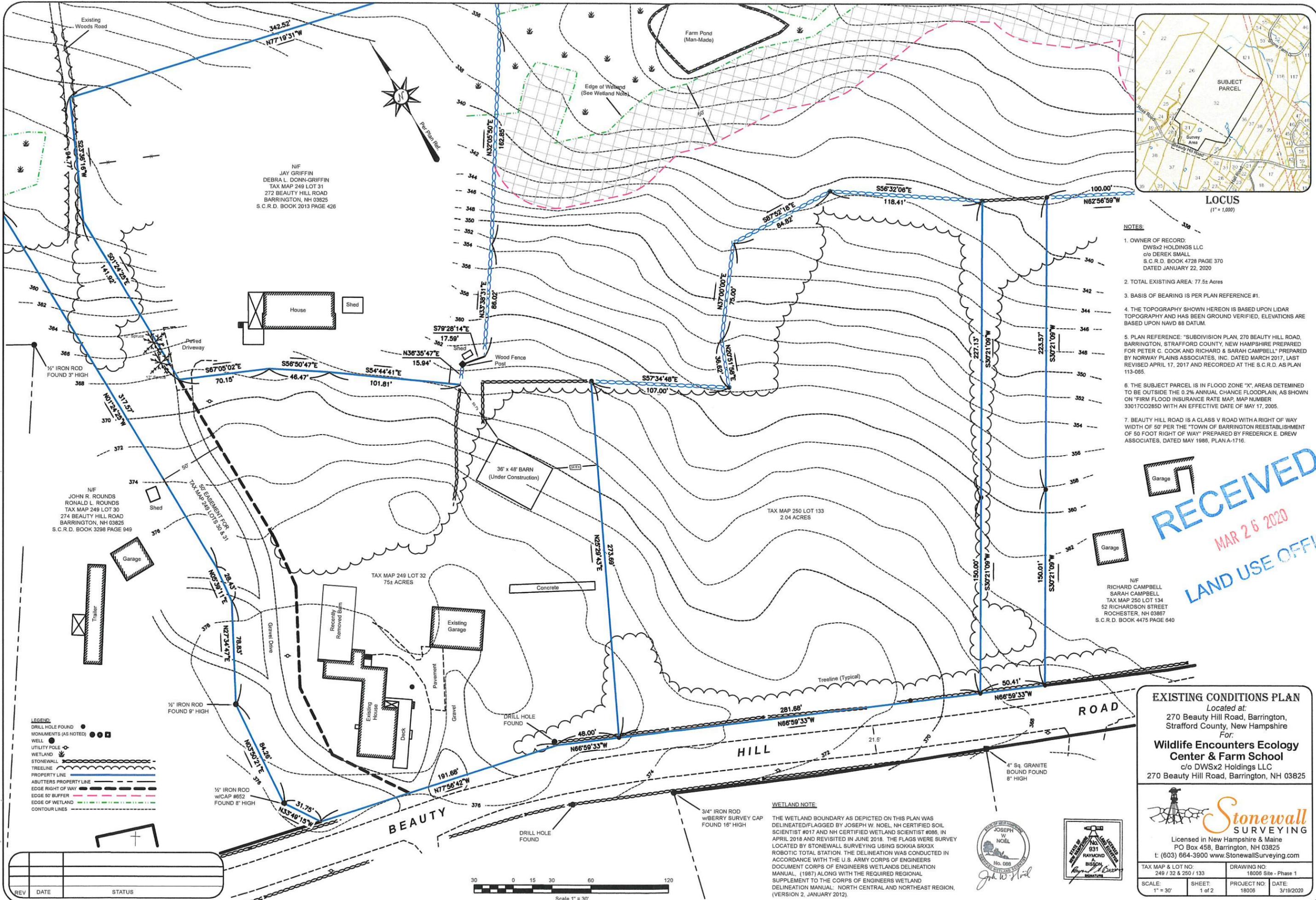
APPLICANT:  
WILDLIFE ENCOUNTERS  
ECOLOGY CENTER  
270 BEAUTY HILL RD  
BARRINGTON, NH 03825

PROJECT:  
TAX MAP/LOT  
250/133 &  
249/32  
270 BEAUTY HILL  
ROAD  
BARRINGTON, NH

TITLE:  
COVER SHEET

SHEET NUMBER:  
C-1

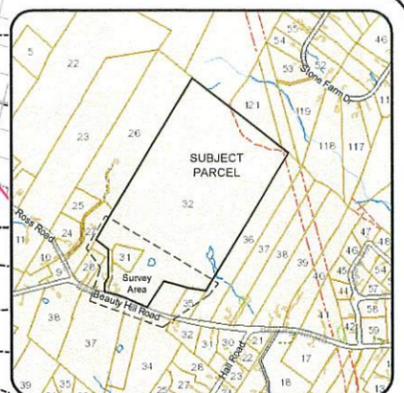
C-1	COVER SHEET	D-1	DETAILS
C-2	EXISTING CONDITIONS	D-2	DETAILS
C-3	BOUNDARY COMPILATION	D-3	DETAILS
C-4	AND TOPOGRAPHY PLAN		BY SCOTT BAILEY
C-5	SITE PLAN		
	PROFILE		
	SIGHT DISTANCE		
	PATH PROFILE		



N/F  
JAY GRIFFIN  
DEBRA L. DONN-GRIFFIN  
TAX MAP 249 LOT 31  
272 BEAUTY HILL ROAD  
BARRINGTON, NH 03825  
S. C. R. D. BOOK 2013 PAGE 426

N/F  
JOHN R. ROUNDS  
RONALD L. ROUNDS  
TAX MAP 249 LOT 30  
274 BEAUTY HILL ROAD  
BARRINGTON, NH 03825  
S. C. R. D. BOOK 3298 PAGE 949

N/F  
RICHARD CAMPBELL  
SARAH CAMPBELL  
TAX MAP 250 LOT 134  
52 RICHARDSON STREET  
ROCHESTER, NH 03867  
S. C. R. D. BOOK 4475 PAGE 640



**LOCUS**  
(1" = 1,000')

- NOTES:**
- OWNER OF RECORD:  
DWSx2 HOLDINGS LLC  
c/o DEREK SMALL  
S. C. R. D. BOOK 4728 PAGE 370  
DATED JANUARY 22, 2020
  - TOTAL EXISTING AREA: 77.5± Acres
  - BASIS OF BEARING IS PER PLAN REFERENCE #1.
  - THE TOPOGRAPHY SHOWN HEREON IS BASED UPON LIDAR TOPOGRAPHY AND HAS BEEN GROUND VERIFIED, ELEVATIONS ARE BASED UPON NAVD 88 DATUM.
  - PLAN REFERENCE: "SUBDIVISION PLAN, 270 BEAUTY HILL ROAD, BARRINGTON, STRAFFORD COUNTY, NEW HAMPSHIRE PREPARED FOR PETER C. COOK AND RICHARD & SARAH CAMPBELL" PREPARED BY NORWAY PLAINS ASSOCIATES, INC. DATED MARCH 2017, LAST REVISED APRIL 17, 2017 AND RECORDED AT THE S. C. R. D. AS PLAN 113-065.
  - THE SUBJECT PARCEL IS IN FLOOD ZONE "X", AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON "FIRM FLOOD INSURANCE RATE MAP, MAP NUMBER 33017CO285D WITH AN EFFECTIVE DATE OF MAY 17, 2005.
  - BEAUTY HILL ROAD IS A CLASS V ROAD WITH A RIGHT OF WAY WIDTH OF 50' PER THE "TOWN OF BARRINGTON REESTABLISHMENT OF 50 FOOT RIGHT OF WAY" PREPARED BY FREDERICK E. DREW ASSOCIATES, DATED MAY 1985, PLAN A-1716.

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MAR 26 2020  
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- LEGEND:**
- DRILL HOLE FOUND
  - MONUMENTS (AS NOTED)
  - WELL
  - UTILITY POLE
  - WETLAND
  - STONEWALL
  - TREELINE
  - PROPERTY LINE
  - ABUTTERS PROPERTY LINE
  - EDGE RIGHT OF WAY
  - EDGE 50' BUFFER
  - EDGE OF WETLAND
  - CONTOUR LINES

**WETLAND NOTE:**  
THE WETLAND BOUNDARY AS DEPICTED ON THIS PLAN WAS DELINEATED/FLAGGED BY JOSEPH W. NOEL, NH CERTIFIED SOIL SCIENTIST #017 AND NH CERTIFIED WETLAND SCIENTIST #086, IN APRIL 2018 AND REVISITED IN JUNE 2018. THE FLAGS WERE SURVEY LOCATED BY STONEWALL SURVEYING USING SOKKIA SRX3X ROBOTIC TOTAL STATION. THE DELINEATION WAS CONDUCTED IN ACCORDANCE WITH THE U. S. ARMY CORPS OF ENGINEERS DOCUMENT CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, (1987) ALONG WITH THE REQUIRED REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTH CENTRAL AND NORTHEAST REGION, (VERSION 2, JANUARY 2012).



**EXISTING CONDITIONS PLAN**  
Located at:  
270 Beauty Hill Road, Barrington,  
Strafford County, New Hampshire  
For:  
**Wildlife Encounters Ecology  
Center & Farm School**  
c/o DWSx2 Holdings LLC  
270 Beauty Hill Road, Barrington, NH 03825

**Stonewall SURVEYING**  
Licensed in New Hampshire & Maine  
PO Box 458, Barrington, NH 03825  
t: (603) 664-3900 www.StonewallSurveying.com

TAX MAP & LOT NO:  
249 / 32 & 250 / 133

DRAWING NO:  
18006 Site - Phase 1

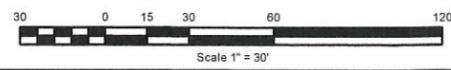
SCALE: 1" = 30'

SHEET: 1 of 2

PROJECT NO: 18006

DATE: 3/19/2020

REV	DATE	STATUS



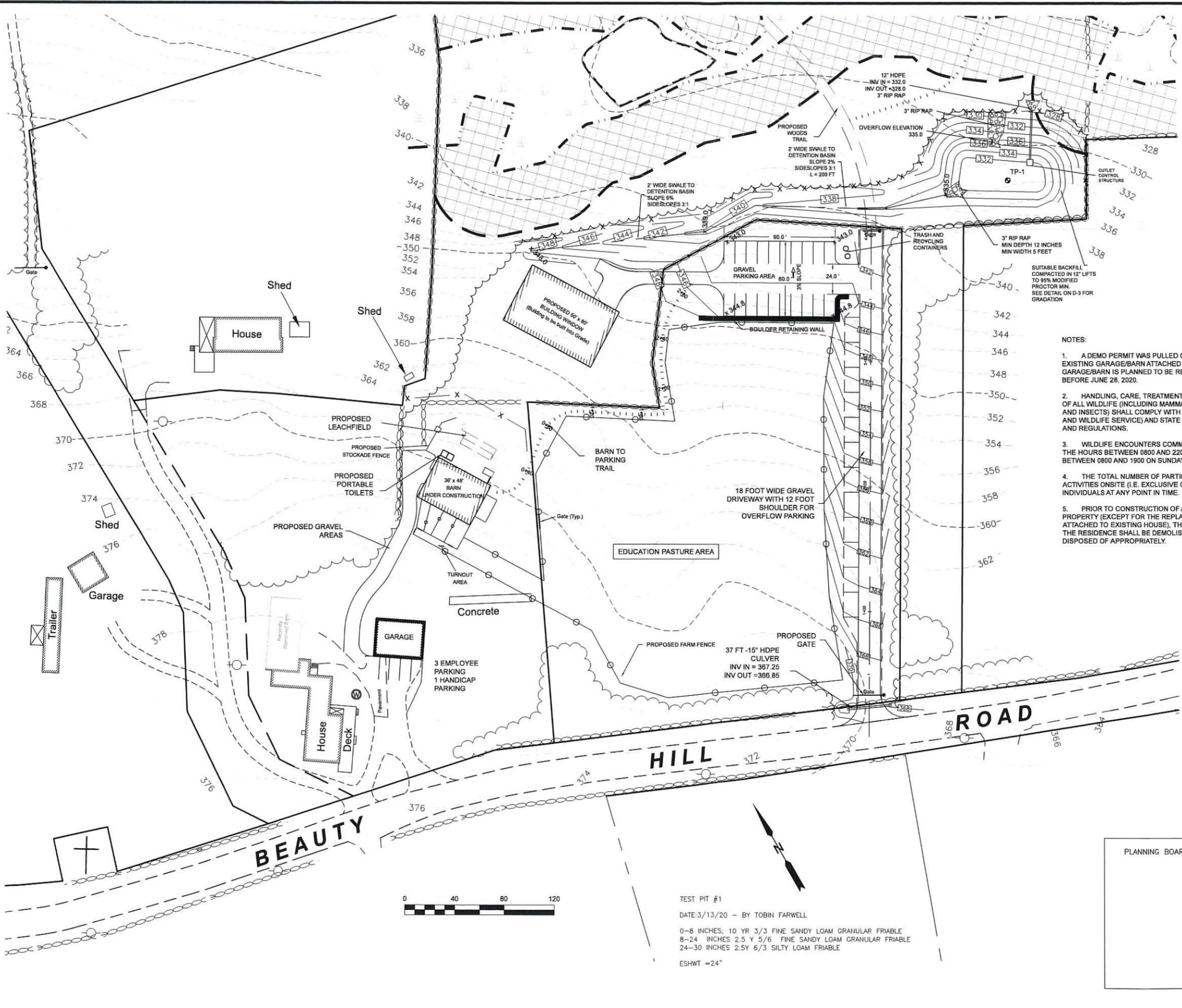




BERM GRADATION TABLE

SIEVE SIZE	% PASSING
2 inch	100
NO. 4	30-80
NO. 200	15-30

THE FINE MATERIAL FRACTION TO CONTAIN CLAY, SILT SHALL NOT BE ACCEPTABLE



NOTES:

1. A DEMO PERMIT WAS PULLED ON JUNE 28, 2018 TO REMOVE THE EXISTING GARAGE/BARN ATTACHED TO THE MAIN HOUSE. A NEW GARAGE/BARN IS PLANNED TO BE REBUILT IN THIS FOOTPRINT BEGINNING BEFORE JUNE 28, 2020.
2. HANDLING, CARE, TREATMENT, SECURITY, AND TRANSPORTATION OF ALL WILDLIFE (INCLUDING MAMMALS, REPTILES, AQUATIC LIFE, BIRDS, AND INSECTS) SHALL COMPLY WITH ALL FEDERAL (E.G., USDA, US FISH AND WILDLIFE SERVICE) AND STATE OF NEW HAMPSHIRE LAWS, RULES, AND REGULATIONS.
3. WILDLIFE ENCOUNTERS COMMERCIAL OPERATIONS ARE LIMITED TO THE HOURS BETWEEN 0800 AND 2200 MONDAY THROUGH SATURDAY, AND BETWEEN 0800 AND 1900 ON SUNDAYS.
4. THE TOTAL NUMBER OF PARTICIPANTS IN WILDLIFE ENCOUNTER ACTIVITIES ONSITE (I.E. EXCLUSIVE OF STAFF) IS LIMITED TO SIXTY INDIVIDUALS AT ANY POINT IN TIME.
5. PRIOR TO CONSTRUCTION OF ANY NEW STRUCTURES ON THE PROPERTY (EXCEPT FOR THE REPLACEMENT OF GARAGE/BARN ATTACHED TO EXISTING HOUSE), THE EXISTING GARAGE NORTHEAST OF THE RESIDENCE SHALL BE DEMOLISHED AND DEBRIS/WASTE MATERIALS DISPOSED OF APPROPRIATELY.

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MAY 20 2019

ISSUED FOR: **SITE PLAN REVIEW**  
ISSUE DATE: **JUNE 26, 2019**  
FILE NAME: **1808-DS**

NO.	DATE	DESCRIPTION	TWF	BY
1	3/19/20	TOWN REVIEW COMMENTS		

SCALE: 1" = 40'

OWNER: **DWSX2 HOLDINGS LLC  
C/O DEREK SMALL**

APPLICANT: **WILDLIFE ENCOUNTERS  
ECOLOGY CENTER  
270 BEAUTY HILL RD  
BARRINGTON, NH 03825**

PROJECT: **TAX MAP/LOT  
250/133 &  
249/32  
270 BEAUTY HILL  
ROAD  
BARRINGTON, NH**

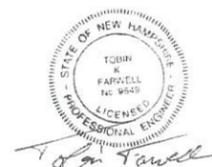
TITLE: **SITE PLAN**

SHEET NUMBER: **C-2**



TEST PIT #1  
DATE: 3/13/20 - BY TOBIN FARWELL  
0-8 INCHES: 10 YR 3/3 FINE SANDY LOAM GRANULAR FRIABLE  
8-24 INCHES: 2.5 Y 5/6 FINE SANDY LOAM GRANULAR FRIABLE  
24-30 INCHES: 2.5 Y 6/3 SILTY LOAM FRIABLE  
ESHW = 24"

PLANNING BOARD APPROVAL BLOCK



ISSUED FOR: SITE PLAN REVIEW

ISSUE DATE: JUNE 26, 2019

FILE NAME: 1808-DS

NO.	DATE	TOWN REVIEW COMMENTS	TRF	BY
1	3/19/20			

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LAND USE OFFICE

SCALE: 1" = 40'

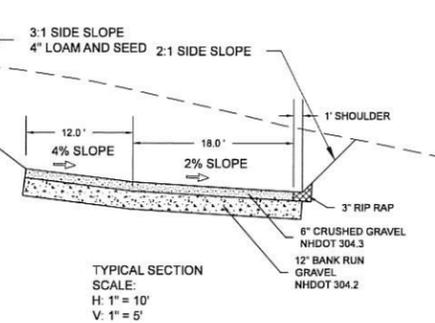
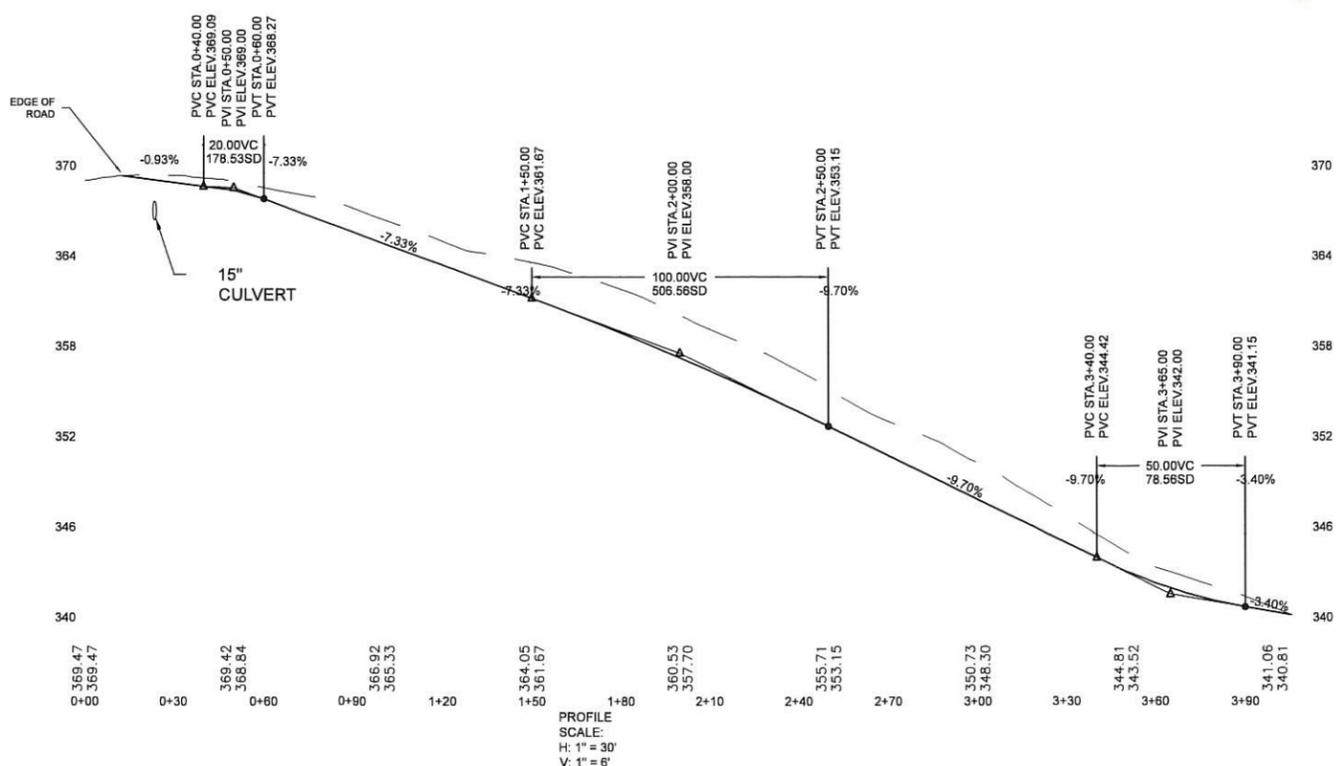
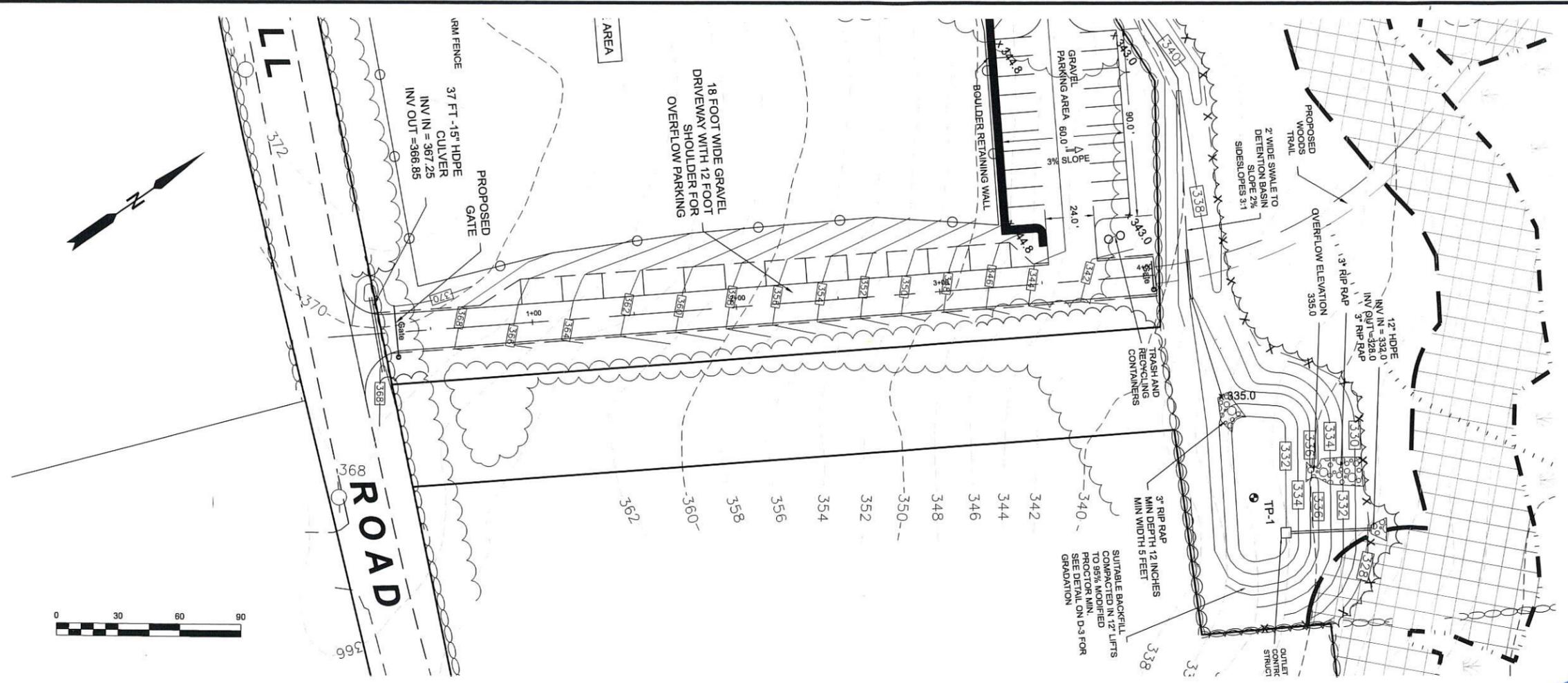
OWNER: DWSX2 HOLDINGS LLC  
C/O DEREK SMALL

APPLICANT: WILDLIFE ENCOUNTERS  
ECOLOGY CENTER  
270 BEAUTY HILL RD  
BARRINGTON, NH 03825

PROJECT: TAX MAP/LOT  
250/133 &  
249/32  
270 BEAUTY HILL  
ROAD  
BARRINGTON, NH

TITLE: PROFILE

SHEET NUMBER: C-3



**FARWELL**  
ENGINEERING  
SERVICES, LLC

265 WADLEIGH FALLS ROAD  
LEE, NEW HAMPSHIRE 03861  
PH: 603-292-5787  
WWW.FARWELLENGINEERING.COM



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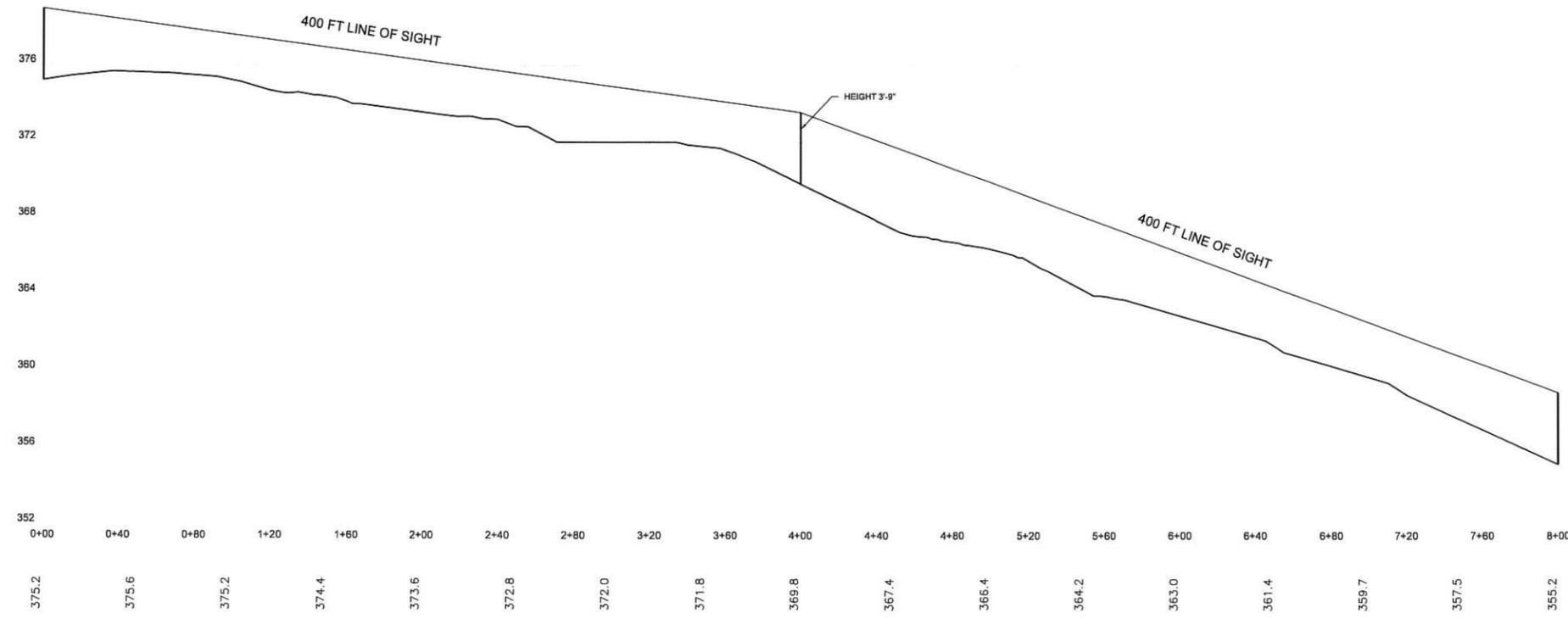
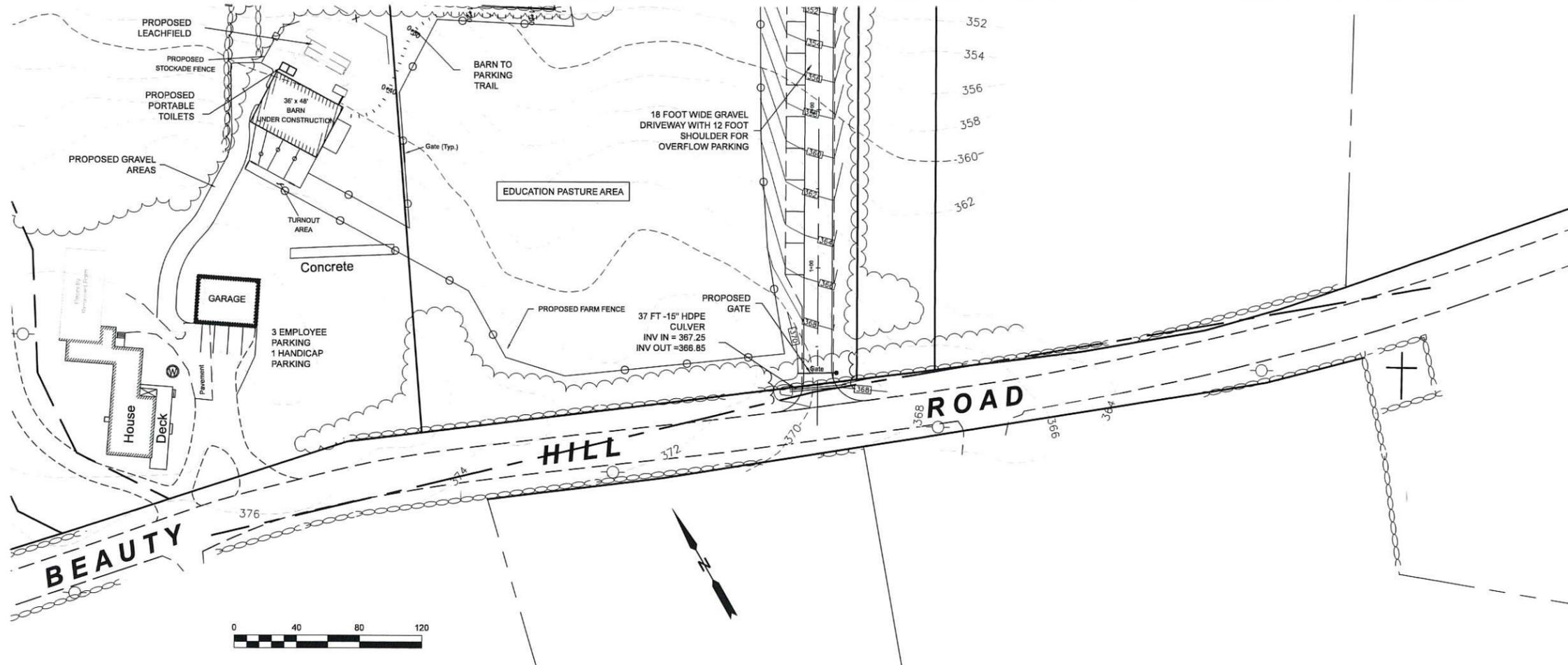
OWNER:  
**DWSX2 HOLDINGS LLC  
C/O DEREK SMALL**

APPLICANT:  
**WILDLIFE ENCOUNTERS  
ECOLOGY CENTER  
270 BEAUTY HILL RD  
BARRINGTON, NH 03825**

PROJECT:  
**TAX MAP/LOT  
250/133 &  
249/32  
270 BEAUTY HILL  
ROAD  
BARRINGTON, NH**

TITLE:  
**SIGHT  
DISTANCE**

SHEET NUMBER:  
**C-4**



NOTES:  
1. THIS SITE HAS GREATER THAN 400 FT OF ALL SEASON SITE DISTANCE IN BOTH DIRECTIONS FROM THE PROPOSED DRIVEWAY LOCATION.

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MAR 23 2020

# FARWELL

## ENGINEERING SERVICES, LLC

265 WADLEIGH FALLS ROAD  
LEE, NEW HAMPSHIRE 03861  
PH: 603-292-5767  
WWW.FARWELLENGINEERING.COM



ISSUED FOR: **SITE PLAN REVIEW**

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1	3/19/20			

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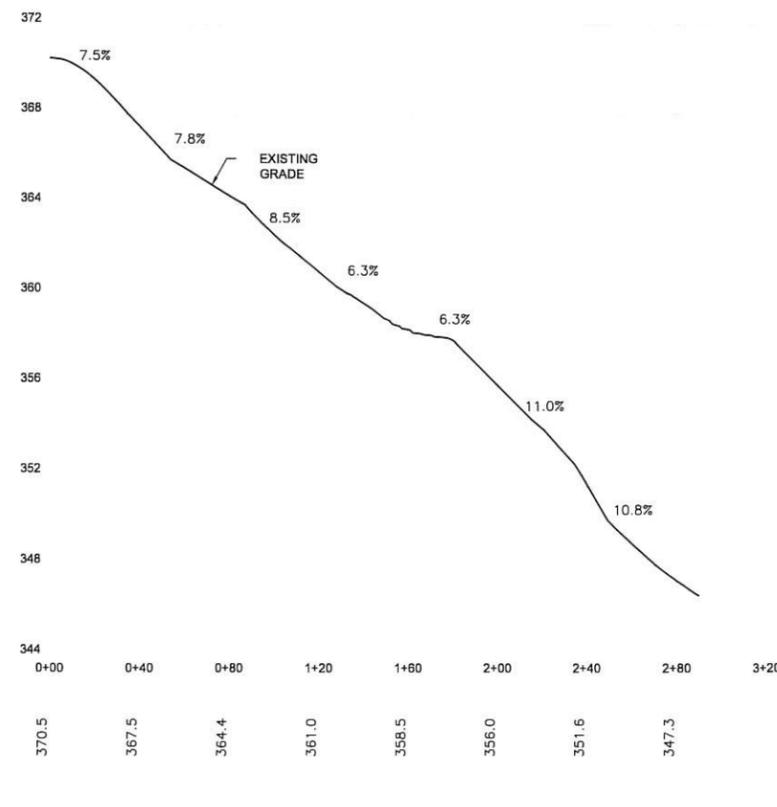
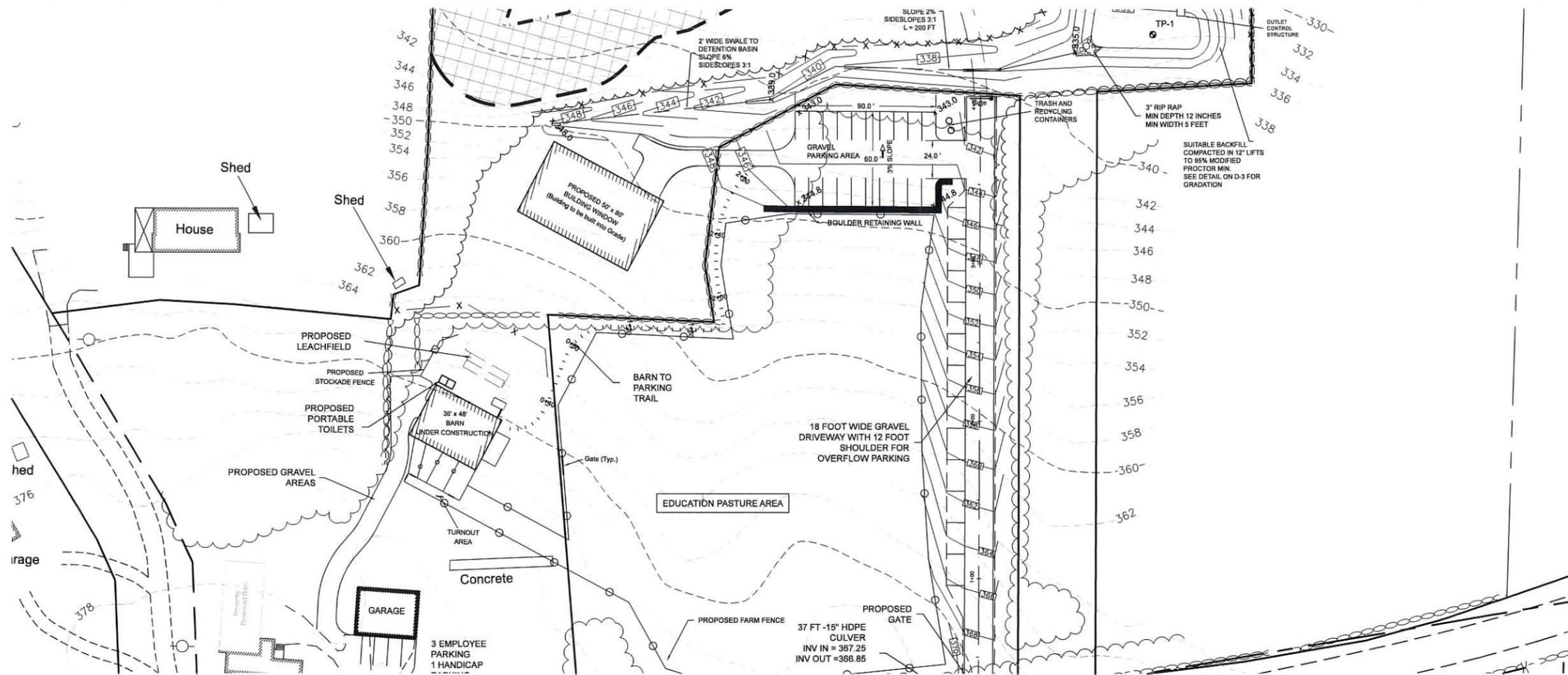
OWNER: **DWSX2 HOLDINGS LLC  
C/O DEREK SMALL**

APPLICANT: **WILDLIFE ENCOUNTERS  
ECOLOGY CENTER  
270 BEAUTY HILL RD  
BARRINGTON, NH 03825**

PROJECT: **TAX MAP/LOT  
250/133 &  
249/32  
270 BEAUTY HILL  
ROAD  
BARRINGTON, NH**

TITLE: **TRAIL  
PROFILE**

SHEET NUMBER: **C-5**



NOTES:  
1. % SLOPE INDICATES THE AVERAGE SLOPE FOR A 40 FT DISTANCE.  
2. STEPS MAY BE ADDED DURING CONSTRUCTION IN PLACES TOO STEEP.

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MAR 2 2020

LAND USE

PROFILE SCALE:  
H: 1" = 40'  
V: 1" = 4'

**PROJECT NAME AND LOCATION**

WILDLIFE ENCOUNTERS  
270 BEAUTY HILL ROAD  
BARRINGTON, NH

LATITUDE: 043° 11' 48" N  
LONGITUDE: 071° 1' 18" W

**DESCRIPTION**

PARKING AREA AND ACCESS ROAD, PROPOSED GREENHOUSE AND BARN FOR AGRICULTURAL EDUCATION, DETENTION POND AND SWALE

**DISTURBED AREA**

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 67,000 sq± (1.5 AC.±)

**SEQUENCE OF MAJOR ACTIVITIES**

1. PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS
2. GRUB SITE AND HAUL STUMPS OFF SITE.
3. ALL DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
4. ALL ROADWAY SHALL BE STABILIZED WITH 72 HRS OF ACHIEVING FINISHED GRADE.
5. ALL CUT AND FILL SLOPES SHALL BE SEEDED/LOAMED WITHIN 72 HRS OF ACHIEVING FINISHED GRADE.
6. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY 1/2" OF RAINFALL.

**NAME OF RECEIVING WATERS**

BUMFORD BROOK

**TEMPORARY EROSION AND SEDIMENT CONTROLS AND STABILIZATION PRACTICES**

AS INSTALLED IN THE SEQUENCE OF MAJOR ACTIVITIES THE SILT FENCES/SILT SOCK SHALL BE INSTALLED PRIOR TO COMMENCING ANY CLEARING OR GRADING OF THE SITE. STRUCTURAL CONTROLS SHALL BE INSTALLED CONCURRENTLY WITH THE APPLICABLE ACTIVITY. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN TWENTY EIGHT (28) DAYS WILL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN TWENTY-ONE (21) DAYS OF THE LAST DISTURBANCE. ONCE CONSTRUCTION ACTIVITY IS COMPLETED IN AN AREA, SILT FENCES/SILT SOCK, BARRIERS AND ANY EARTH/DIKES WILL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.

DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH SILT FENCES/SILT SOCK.

**INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES**

**A. GENERAL**

THESE ARE THE GENERAL INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO IMPLEMENT THE PLAN.

1. THE SMALLEST PRACTICAL PORTION OF THE SITE WILL BE DENUDED AT ONE TIME.
2. ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST ONCE EACH WEEK AND FOLLOWING ANY STORM EVENT OF 0.5 INCHES OR GREATER.
3. ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS.
4. BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE OR HAY BALE BARRIERS WHEN IT HAS REACHED ONE THIRD THE HEIGHT OF THE FENCE OR BALE, OR WHEN "BULGES" OCCUR.
5. ALL DIVERSION DIKES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.
6. TEMPORARY SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND UNHEALTHY GROWTH.
7. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION.
8. THE CONTRACTOR'S SITE SUPERINTENDENT WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.
9. THE OWNER'S AUTHORIZED ENGINEER SHALL INSPECT THE SITE ON A PERIODIC BASIS TO ASSURE COMPLIANCE WITH THE PLANS.

**B. MULCHING**

1. TIMING  
MULCHING - MULCH SHOULD BE USED ON HIGHLY ERODIBLE SOILS, ON CRITICALLY ERODING AREAS, ON AREAS WHERE CONSERVATION OF MOISTURE WILL FACILITATE PLANT ESTABLISHMENT, AND WHERE SHOWN ON THE PLANS. IN ORDER FOR MULCH TO BE EFFECTIVE, IT MUST BE IN PLACE PRIOR TO MAJOR STORM EVENTS. THERE ARE TWO (2) TYPES OF STANDARDS WHICH SHALL BE USED TO ASSURE THIS.
  - A. APPLY MULCH PRIOR TO ANY STORM EVENT. THIS IS APPLICABLE WHEN WORKING WITHIN 100 FEET OF WETLANDS. IT WILL BE NECESSARY TO CLOSELY MONITOR WEATHER PREDICTIONS, USUALLY BY CONTACTING THE NATIONAL WEATHER SERVICE IN CONCORD, TO HAVE ADEQUATE WARNING OF SIGNIFICANT STORMS.
  - B. REQUIRED MULCHING WITHIN A SPECIFIED TIME PERIOD. THE TIME PERIOD CAN RANGE FROM 21 TO 28 DAYS OF INACTIVITY ON A AREA, THE LENGTH OF TIME VARYING ACCORDING TO SITE CONDITIONS. PROFESSIONAL JUDGMENT SHALL BE USED TO EVALUATE THE INTERACTION OF SITE CONDITIONS (SOIL ERODIBILITY, SEASON OF YEAR, EXTENT OF DISTURBANCE, PROXIMITY TO SENSITIVE RESOURCES, ETC.) AND THE POTENTIAL IMPACT OF EROSION ON ADJACENT AREAS TO CHOOSE AN APPROPRIATE TIME RESTRICTION.
2. GUIDELINES FOR WINTER STABILIZATION.
  - A. ALL PROPOSED POST-DEVELOPMENT VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH OR WHICH ARE DISTURBED AFTER OCTOBER 15TH SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHOR NETTING, ELSEWHERE. THE PLACEMENT OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
  - B. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH OR WHICH ARE DISTURBED AFTER OCTOBER 15TH SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
  - C. AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3-INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3 OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.

**C. TEMPORARY GRASS COVER**

1. SEEDBED PREPARATION  
APPLY FERTILIZER AT THE RATE OF 600 POUNDS PER ACRE OF 10-10-10. APPLY LIMESTONE (EQUVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF THREE (3) TONS PER ACRE.
2. SEEDING
  - A. UTILIZE ANNUAL RYE GRASS AT A RATE OF 40 LBS/ACRE.
  - B. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF TWO (2) INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
  - C. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). HYDROSEEDINGS, WHICH INCLUDE MULCH, MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING.
3. MAINTENANCE  
TEMPORARY SEEDINGS SHALL BE PERIODICALLY INSPECTED. AT A MINIMUM, 95% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND OTHER TEMPORARY MEASURES USED IN THE INTERIM (MULCH, FILTER BARRIERS, CHECK DAMS, ETC.).

**D. FILTERS**

1. SILT FENCE
  - A. SYNTHETIC FILTER FABRIC SHALL BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE FOLLOWING REQUIREMENTS:

SILT FENCE PROPERTIES		
PHYSICAL PROPERTY	TEST	REQUIREMENTS
GRAB TENSILE	ASTM-D-4632	95/80 LB
PUNCTURE	ASTM-D-4833	45 LB
FLOW RATE	ASTM-D-4491	5 GAL/MIN/SF
UV RESISTANCE	ASTM D-4751	80%
GRAB ELONGATION	ASTM D-4632	20/25%

\* Requirements reduced by 50 percent after six (6) months of installation.

SYNTHETIC FILTER FABRIC SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF SIX (6) MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 DEGREES F TO 120° F.

- B. POSTS SHALL BE SPACED A MAXIMUM OF TEN (10) FEET APART AT THE BARRIER LOCATION OR AS RECOMMENDED BY THE MANUFACTURER AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 16 INCHES).
- C. A TRENCH SHALL BE EXCAVATED APPROXIMATELY SIX (6) INCHES WIDE AND SIX (6) INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
- D. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST ONE (1) INCH LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND NO MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACES.
- E. THE "STANDARD STRENGTH" FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND SIX (6) INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
- F. WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF ITEM (C) APPLYING.
- G. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
- H. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE BUT NOT BEFORE THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.

**2. SEQUENCE OF INSTALLATION**

SEDIMENT BARRIERS SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE UPSLOPE OF THEM.

**3. MAINTENANCE**

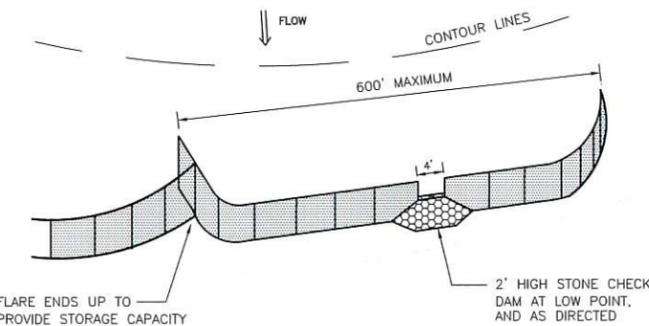
- A. SILT FENCE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. THEY SHALL BE REPAIRED IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER, THE SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM.
- B. SHOULD THE FABRIC ON A SILT FENCE FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
- C. SEDIMENT DEPOSITS MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE THIRD (1/3) THE HEIGHT OF THE BARRIER.
- D. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR HAY BALE BARRIER IS NO LONGER REQUIRED SHALL BE REMOVED. THE AREA SHALL BE PREPARED AND SEEDED.
- E. ADDITIONAL STONE MAY HAVE TO BE ADDED TO THE CONSTRUCTION ENTRANCE, ROCK BARRIER STONE LINED SWALES, ETC., PERIODICALLY TO MAINTAIN PROPER FUNCTION OF THE EROSION CONTROL STRUCTURE.

**E. PERMANENT SEEDING:**

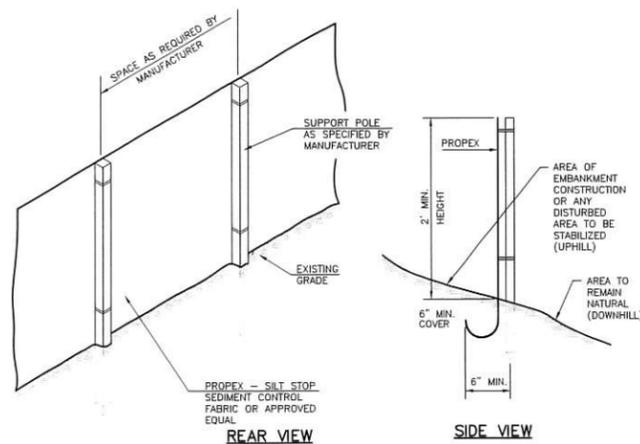
1. BEDDING - STONES LARGER THAN 1", TRASH, ROOTS, AND OTHER DEBRIS THAT WILL INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA SHOULD BE REMOVED. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF 4" TO PREPARE A SEEDBED AND MIX FERTILIZER INTO THE SOIL.
2. FERTILIZER - LIME AND FERTILIZER SHOULD BE APPLIED EVENLY OVER THE AREA PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED: AGRICULTURAL LIMESTONE @ 100 LBS PER 1,000 S.F. 10-20-20 FERTILIZER @ 12 LBS. PER 1,000 S.F. SEED MIXTURE (RECOMMENDED):
3. GRASS SEED - PROVIDE FRESH, CLEAN, NEW-CROP SEED COMPLYING WITH TOLERANCE FOR PURITY AND GERMINATION ESTABLISHED BY OFFICIAL SEED ANALYSTS OF NORTH AMERICA. PROVIDE SEED MIXTURE COMPOSED OF GRASS SPECIES, PROPORTIONS AND MINIMUM PERCENTAGES OF PURITY AS SPECIFIED.

Name	Proportion by Weight	% Germination
Baron Bluegrass	20%	80
Kentucky Bluegrass	20%	80
Creeping Red Fescue	35%	85
Champion Perennial Ryegrass	25%	90

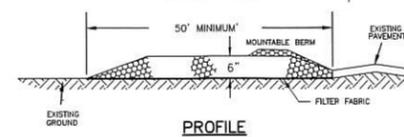
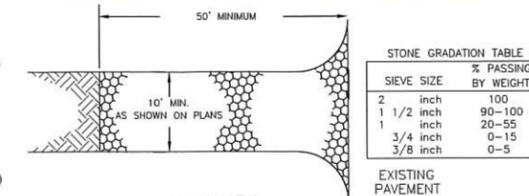
4. SODDING - SODDING IS DONE WHERE IT IS DESIRABLE TO RAPIDLY ESTABLISH COVER ON A DISTURBED AREA. SODDING AN AREA MAY BE SUBSTITUTED FOR PERMANENT SEEDING PROCEDURES ANYWHERE ON SITE. BED PREPARATION, FERTILIZING, AND PLACEMENT OF SOD SHALL BE PERFORMED ACCORDING TO THE S.C.S. HANDBOOK. SODDING IS RECOMMENDED FOR STEEP SLOPED AREAS, AREAS IMMEDIATELY ADJACENT TO A SENSITIVE WATER COURSE, EASILY ERODIBLE SOILS (FINE SAND/SILT) ETC.



**SILT FENCE LAYOUT TO SCALE**



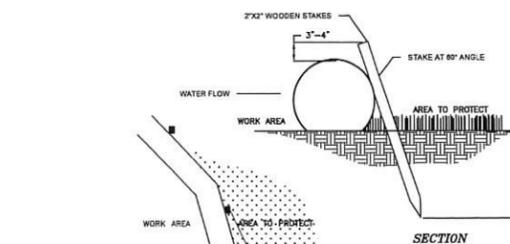
**SILT FENCE DETAIL NOT TO SCALE**



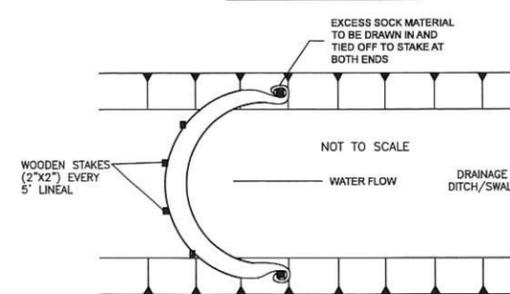
**CONSTRUCTION SPECIFICATIONS**

1. **STONE SIZE** - NHDOT STANDARD STONE SIZE #4 - SECTION 703 OF NHDOT STANDARD SPECIFICATIONS. (SEE GRADATION TABLE)
2. **LENGTH** - DETAILED ON PLANS (50 FOOT MINIMUM).
3. **THICKNESS** - SIX (6) INCHES (MINIMUM).
4. **WIDTH** - FULL DRIVE WIDTH (10 FOOT MINIMUM).
5. **FILTER FABRIC** - MIRAFI 600X OR APPROVED EQUAL.
6. **SURFACE WATER CONTROL** - ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
7. **MAINTENANCE** - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. **WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY.** WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

**STABILIZED CONSTRUCTION ENTRANCE**



**PERIMETER CONTROL**



**DITCH CHECK**

NOTE: FOLLOW MANUFACTURER'S SPECIFICATION  
Modified from Fibrex Standard Specification and Design Manual, Version 5.0, 2006

**SILT SOCK DETAIL NOT TO SCALE**



265 WADLEIGH FALLS ROAD  
LEE, NEW HAMPSHIRE 03861  
PH: 603-292-5767  
WWW.FARWELLENGINEERING.COM



ISSUED FOR: **SITE PLAN REVIEW**

ISSUE DATE: **JUNE 26, 2019**

FILE NAME: **1808-DS**

RECEIVED

MAR 26 2020

LAND USE OFFICE		T&E	BY
NO.	DATE	REVIEW COMMENTS	DESCRIPTION
1	3/19/20		

SCALE: **1" = 40'**

OWNER: **DWSX2 HOLDINGS LLC  
C/O DEREK SMALL**

APPLICANT: **WILDLIFE ENCOUNTERS  
ECOLOGY CENTER  
270 BEAUTY HILL RD  
BARRINGTON, NH 03825**

PROJECT: **TAX MAP/LOT  
250/133 &  
249/32  
270 BEAUTY HILL  
ROAD  
BARRINGTON, NH**

TITLE: **DETAILS**

SHEET NUMBER: **D-1**



ISSUED FOR:  
SITE PLAN REVIEW

ISSUE DATE:  
JUNE 26, 2019

FILE NAME:  
1808-DS

RECEIVED

MAY 2 2020

NO.	DATE	TOWN REVIEW COMMENTS	TKF	BY
1	3/19/20			

SCALE:  
1" = 40'

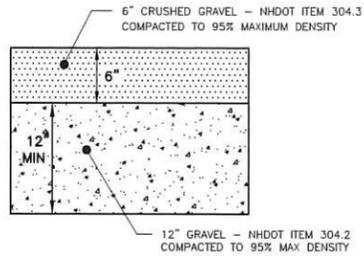
OWNER:  
DWSX2 HOLDINGS LLC  
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APPLICANT:  
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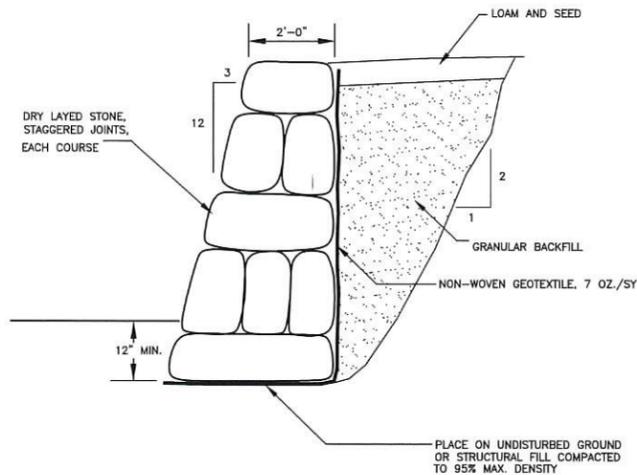
TITLE:  
DETAILS

SHEET NUMBER:  
D-2

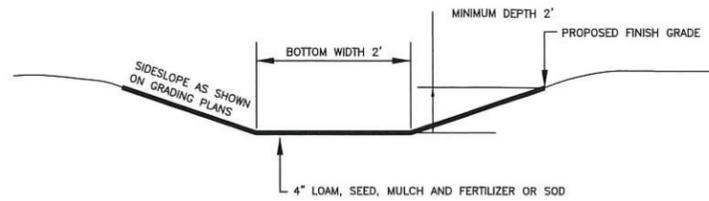


NOTE:  
ALL LOAM AND YIELDING MATERIAL SHALL BE REMOVED TO A DEPTH OF NO LESS THAN 24" BELOW FINISHED GRADE. INSTALL COMPACTED GRANULAR MATERIAL TO SUBGRADE AS NEEDED.

**GRAVEL DRIVE DETAIL**  
NOT TO SCALE



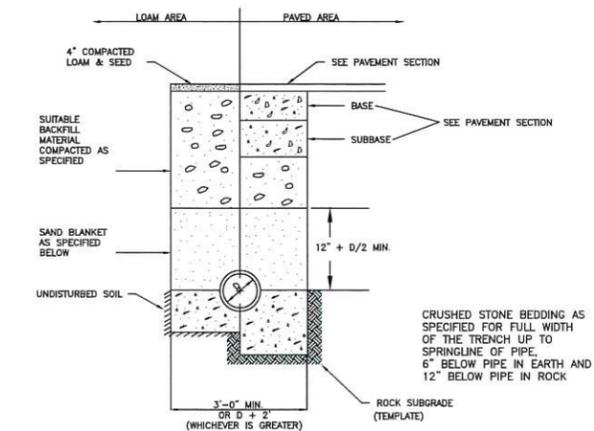
**STONE WALL DETAIL**  
NOT TO SCALE



**NOTES:**

1. THE FOUNDATION AREA OF THE WATERWAY SHALL BE CLEARED AND GRUBBED OF ALL TREES, BRUSH, STUMPS, AND OTHER OBJECTIONABLE MATERIAL. MATERIALS REMOVED SHALL BE DISPOSED OF SO THEY WILL NOT INTERFERE WITH THE CONSTRUCTION OR PROPER FUNCTIONING OF THE WATERWAY.
2. THE WATERWAY SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS SECTION AS REQUIRED TO MEET THE DESIGN CRITERIA. THE WATERWAY SHALL BE FREE OF IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
3. EARTH FILLS REQUIRED TO MEET SUBGRADE REQUIREMENTS BECAUSE OF OVER EXCAVATION OR TOPOGRAPHY SHALL BE COMPACTED TO THE SAME DENSITY AS THE SURROUNDING SOIL TO PREVENT UNEQUAL SETTLEMENT THAT COULD CAUSE DAMAGE TO THE COMPLETED WATERWAY. EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF SO IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE WATERWAY.
4. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER AS TO MINIMIZE EROSION AND AIR AND WATER POLLUTION. ALL APPROPRIATE STATE AND LOCAL LAWS AND REGULATIONS SHALL BE COMPLIED WITH FOR INSTALLATION.
5. VEGETATION SHALL BE ESTABLISHED IN THE SWALE PRIOR TO ALLOWING STORMWATER RUNOFF TO FLOW THROUGH THE SWALE.
6. MAINTENANCE OF THE VEGETATION IN THE GRASSED WATERWAY IS EXTREMELY IMPORTANT IN ORDER TO PREVENT RILLING, EROSION, AND FAILURE OF THE WATERWAY. MOWING SHOULD BE DONE FREQUENTLY ENOUGH TO CONTROL ENCROACHMENT OF WEEDS AND WOODY VEGETATION AND TO KEEP THE GRASSES IN A VIGOROUS CONDITION. THE VEGETATION SHOULD NOT BE MOWED TOO CLOSELY SO AS TO REDUCE THE EROSION RESISTANCE IN THE WATERWAY.
7. THE WATERWAY SHOULD BE INSPECTED PERIODICALLY AND AFTER EVERY MAJOR STORM TO DETERMINE THE CONDITION OF THE WATERWAY. RILLS AND DAMAGED AREAS SHOULD BE PROMPTLY REPAIRED AND REVEGETATED AS NECESSARY TO PREVENT FURTHER DETERIORATION.
8. PERIODIC APPLICATIONS OF LIME AND FERTILIZER MAY BE NEEDED TO MAINTAIN VIGOROUS GROWTH.

**GRASSED SWALE**  
NOT TO SCALE

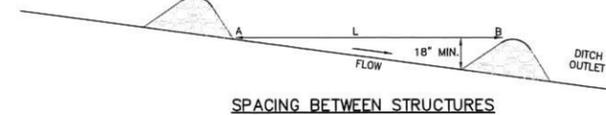
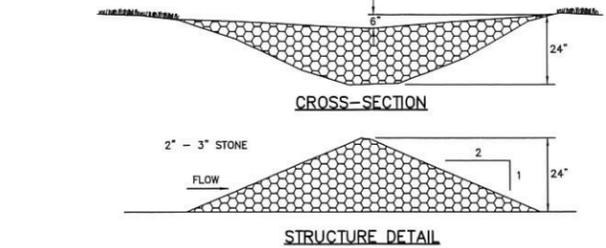


BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET MATERIAL SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.

SAND BLANKET & BEDDING		CRUSHED STONE BEDDING *	
SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
1/2"	90 - 100	1"	100
200	0 - 15	3/4"	90 - 100
		3/8"	20 - 55
		# 4	0 - 10
		# 8	0 - 5

\* EQUIVALENT TO STANDARD STONE SIZE #67 - SECTION 703 OF NHDOT STANDARD SPECIFICATIONS

**TRENCH DETAIL**  
NOT TO SCALE



1. L = DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION
2. CHECK DAM SHALL BE CONSTRUCTED OF 2" TO 3" STONE WITH COMPLETE COVERAGE OF DITCH OR SWALE TO INSURE THAT THE CENTER OF THE STRUCTURE IS LOWER THAN THE EDGES.

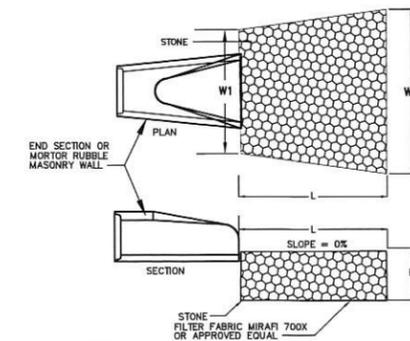
**MAINTENANCE**

TEMPORARY GRADE STABILIZATION STRUCTURES SHOULD BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED STORMS. ANY NECESSARY REPAIRS SHOULD BE MADE IMMEDIATELY. PARTICULAR ATTENTION SHOULD BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE. WHEN THE STRUCTURES ARE REMOVED, THE DISTURBED PORTION SHOULD BE BROUGHT TO THE EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEED, AND MULCHED. WHILE THIS PRACTICE IS NOT INTENDED TO BE USED PRIMARILY FOR SEDIMENT TRAPPING, SOME SEDIMENT WILL ACCUMULATE BEHIND THE STRUCTURES. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT HAS ACCUMULATED TO ONE HALF OF THE ORIGINAL HEIGHT OF THE STRUCTURE.

**CONSTRUCTION SPECIFICATIONS**

1. STRUCTURES SHALL BE INSTALLED ACCORDING TO THE DIMENSIONS SHOWN ON THE PLANS AT THE APPROPRIATE SPACING.
2. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER SO THAT EROSION AND AIR AND WATER POLLUTION WILL BE MINIMIZED.
3. SEEDING, FERTILIZING, AND MULCHING SHALL CONFORM TO THE RECOMMENDATIONS IN THE APPROPRIATE VEGETATIVE BMP.
4. STRUCTURES SHALL BE REMOVED FROM THE CHANNEL WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED.

**STONE CHECK DAM DETAIL**  
NOT TO SCALE



**NOTES:**

1. STONE SIZE AND MAT DIMENSIONS DETAILED ON SITE PLANS.
2. FIELD STONE, QUARRY STONE, OR ROCK FRAGMENTS SHALL BE SOUND, OF APPROVED QUALITY, AND FREE FROM STRUCTURAL DEFECTS. THE STONES SHALL BE ANGULAR AND APPROXIMATELY RECTANGULAR IN SHAPE. FLAT OR ROUND ROCKS ARE NOT ACCEPTABLE.
3. A WELL GRADED MIXTURE OF ROCK SIZES SHALL BE USED FOR STONE. FIFTY PERCENT BY WEIGHT OF THE STONE MIXTURE SHALL BE SMALLER THAN THE MEDIAN SIZE STONE (d50). THE LARGEST STONE SIZE IN THE MIXTURE SHALL BE 1.5 TIMES THE d50 SIZE.

**RIP RAP OUTLET PROTECTION**  
NOT TO SCALE

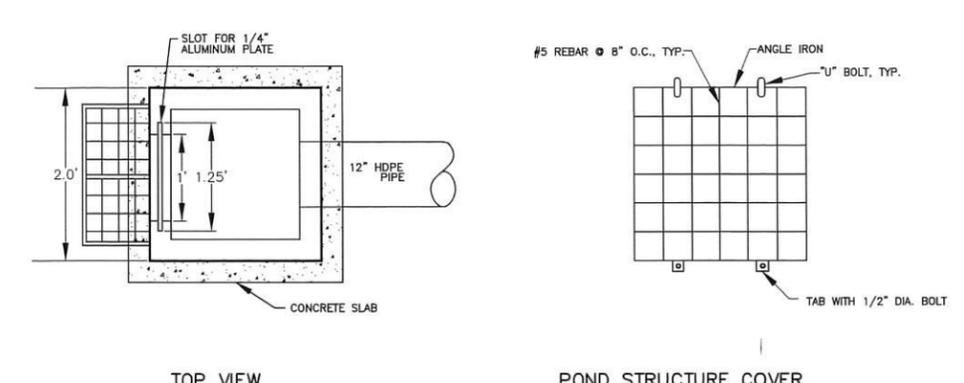
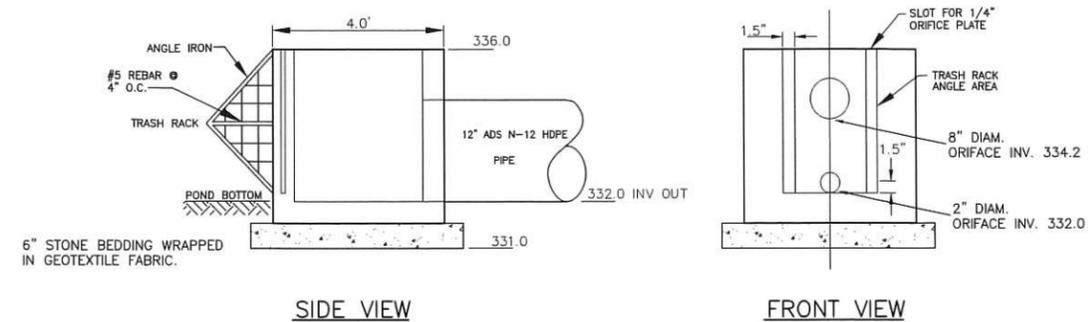


ISSUED FOR: **SITE PLAN REVIEW**

ISSUE DATE: **JUNE 26, 2019**

FILE NAME: **1808-DS**

RECEIVED	MAR 20 2020	LAND USE OFFICE	TOWN REVIEW COMMENTS	TRF	BY
			NO.	DATE	DESCRIPTION
			1	3/19/20	

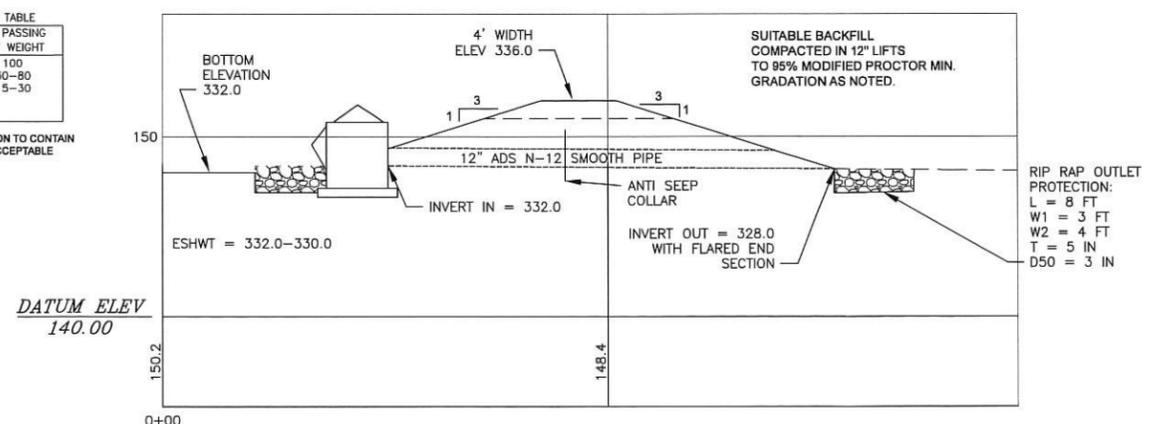


**OUTLET STRUCTURE #1**  
 NOT TO SCALE

**BERM GRADATION TABLE**

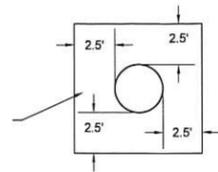
SIEVE SIZE	% PASSING BY WEIGHT
2 inch	100
NO. 4	30-80
NO. 200	15-30

THE FINE MATERIAL FRACTION TO CONTAIN CLAY, SILT SHALL NOT BE ACCEPTABLE



**DETENTION BASIN #1**  
**SECTION C-C**  
 SCALE: 1" = 5'

ANTI-SEEP COLLARS SHALL BE FABRICATED 1/4" HDPE & HAVE A WATER TIGHT SEAL BETWEEN THE PIPE AND COLLAR



**ANTI-SEEP COLLAR DETAIL**

SCALE: NOT TO SCALE

SCALE: 1" = 40'

OWNER: **DWSX2 HOLDINGS LLC**  
**C/O DEREK SMALL**

APPLICANT: **WILDLIFE ENCOUNTERS**  
**ECOLOGY CENTER**  
**270 BEAUTY HILL RD**  
**BARRINGTON, NH 03825**

PROJECT: **TAX MAP/LOT**  
**250/133 &**  
**249/32**  
**270 BEAUTY HILL**  
**ROAD**  
**BARRINGTON, NH**

TITLE: **DETAILS**

SHEET NUMBER: **D-3**

