Kirby Corner Handy Four Bog Corner ATLANTIC OCEAN LAT: N41° 30' 38.3" LONG: W71° 01' 50.2" Mishaum Ledge SCALE: 1" = ½ MILE

GADUS SOLAR

SHEET INDEX:

SHEET NUMBER	SHEET TITLE	DRAWING DATE	REVISION DATE
C-0.00	COVER PAGE PROPOSED SOLAR ARRAY	11/17/21	04/14/22
C-1.00	OVERALL SITE PLAN PRELIMINARY SOLAR ARRAY	05/03/21	03/03/22
C-1.01	EXISTING CONDITIONS AND PRE-DEVELOPMENT DRAINAGE PLAN	05/03/21	03/03/22
C-1.02	PROPOSED CLEARING PLAN	07/02/21	03/03/22
C-1.03	PROPOSED GRADING, ROAD INSTALLATION AND STORMWATER MANAGEMENT PLAN	07/14/21	03/03/22
C-1.04	DETAILED SITE PLAN	07/14/21	03/03/22
C-2.00	CROSS SECTION PLAN FOR NEIGHBORING BUILDING	05/03/21	03/03/22
C-3.00	DETAILS	05/03/21	03/03/22
C-3.01	DETAILS	05/03/21	03/03/22
C-3.02	DETAILS	08/06/21	03/03/22
C-3.03	DETAILS	09/17/21	03/03/22

LIST OF WAIVER REQUESTS:

• NO WAIVER REQUESTS

GADUS SOLAR

Horseneck Road Westport, Massachusetts



APPLICANT:





ISSUED FOR PERMIT REVIEW NOT FOR CONSTRUCTION

CIVIL ENGINEER:

Krebs and Lansing Consulting Engineers, Inc. 164 Main Street, Suite 201 Colchester, Vermont 05446

ENVIRONMENTAL

BRI Environmental 30 Danforth Street Suite 213 Portland, ME 04101

OWNER & PROPERTY INFORMATION: Bruce and Patricia Mayall

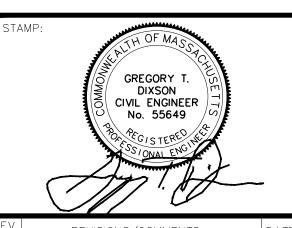
Owner Address: 124 Milton Street

Fall River, MA 02720

Parcel ID: 76-69S-0

Parcel Address: 0 Horseneck Road

Westport, MA 02790



NO.	REVISIONS/COMMENTS	DATE
1.	Updates after Town meeting	12/20/2
2.	Update project access	01/17/22
3.	Update Fire Department comments	01/20/2
4.	Address updates to plan sheets	01/31/22
5.	Address Board Member Mr. Daylor's	03/03/2
	comments and Public comments	
6.	Remove Waiver Request	04/14/2
D.D. 4.1	AUNIO TITLE	

DRAWING TITLE:

WESTPORT PLANNING

DATE

BOARD APPROVAL

RECEIVED

April 19, 2022

WESTPORT PLANNING BOARD COVER PAGE PROPOSED SOLAR ARRAY

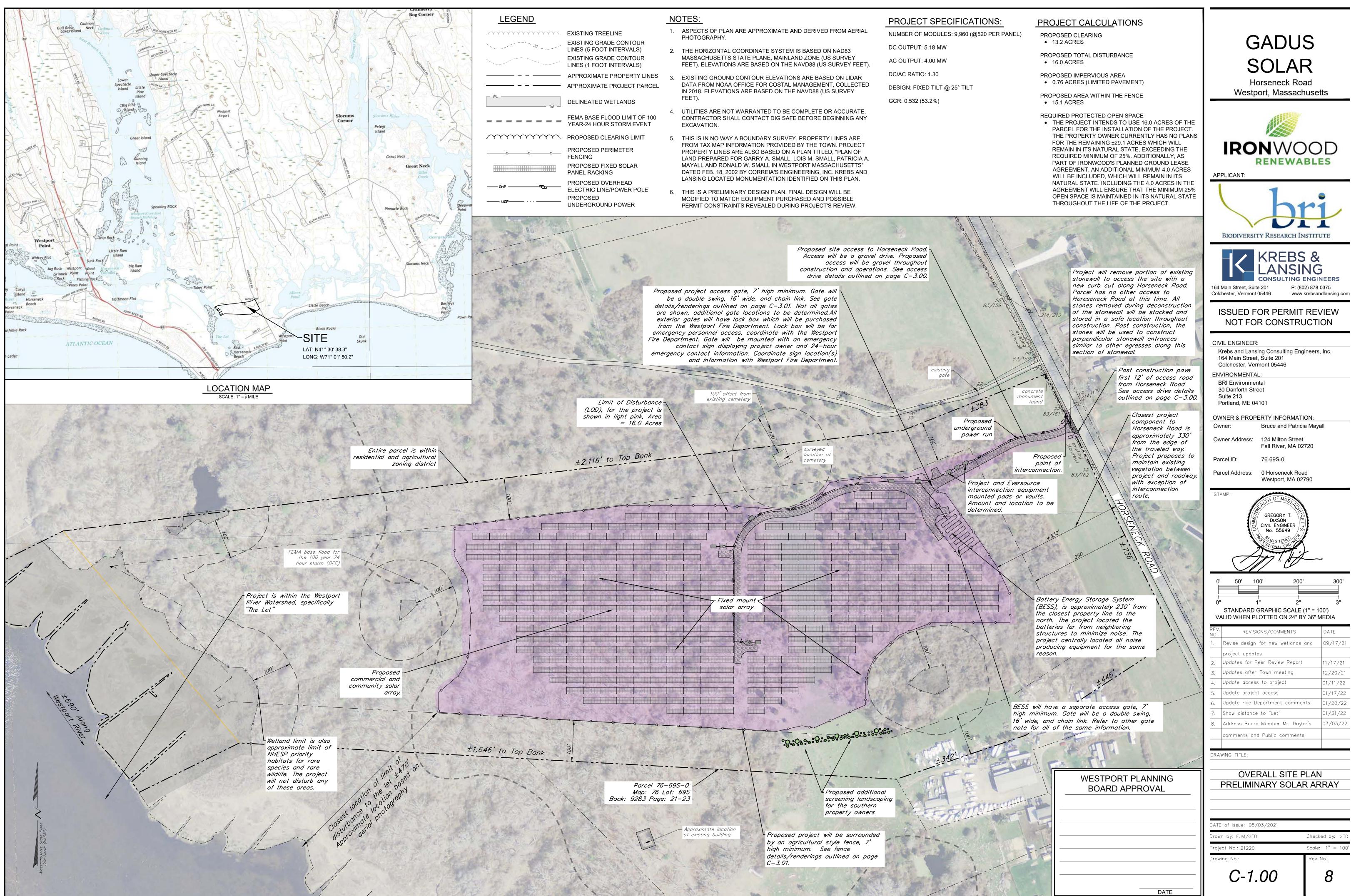
Checked by: GTD

Scale: 1" = 100'

DATE of Issue: 11/17/2021

Drawn by: EJM/GTD

C-0.00



Westport, Massachusetts



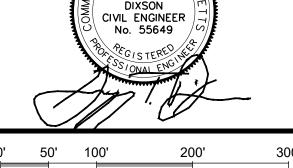




ISSUED FOR PERMIT REVIEW

OWNER & PROPERTY INFORMATION:

Westport, MA 02790

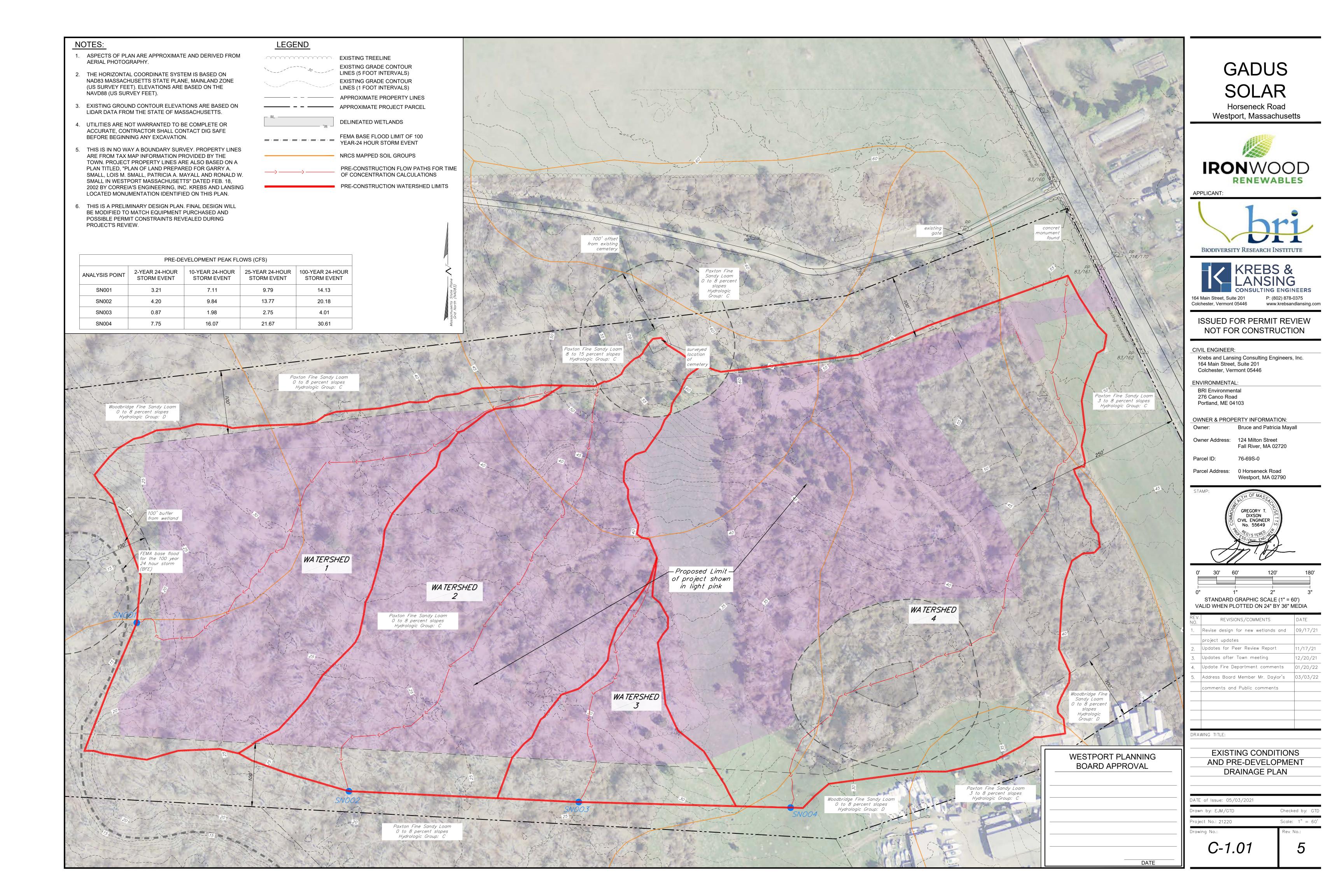


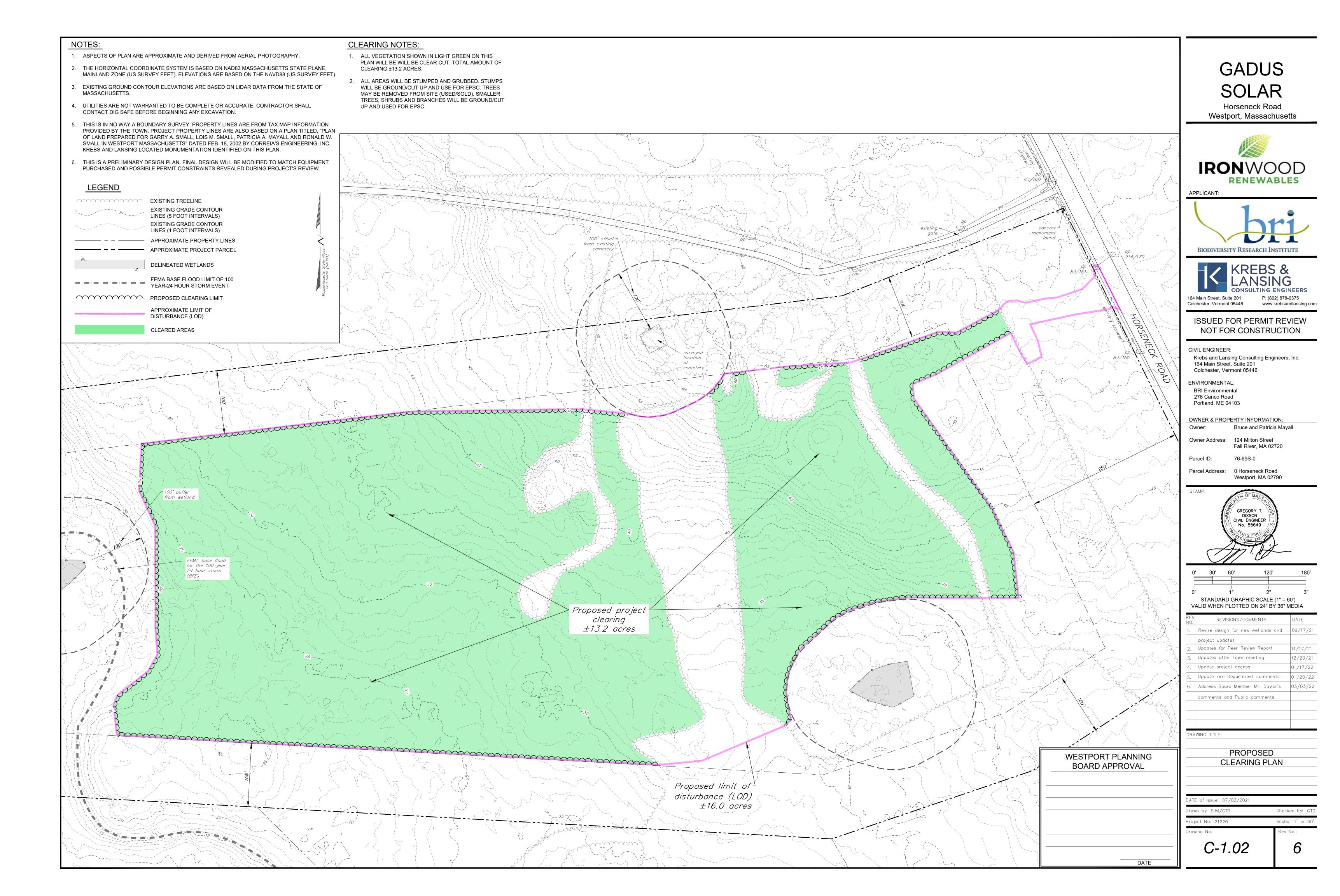
STANDARD GRAPHIC SCALE (1" = 100')

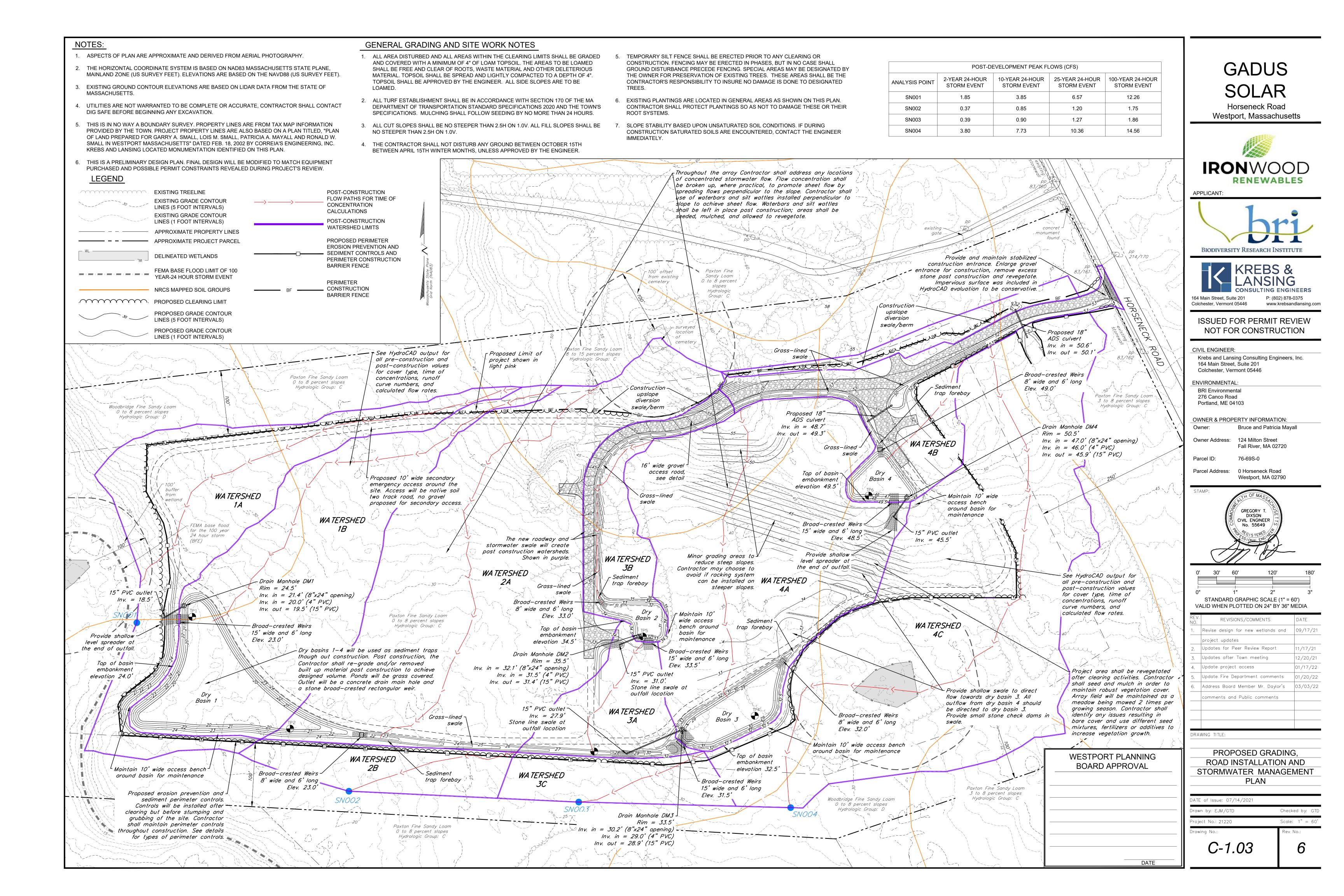
REV. NO.	REVISIONS/COMMENTS	DATE
1.	Revise design for new wetlands and	09/17/21
	project updates	
2.	Updates for Peer Review Report	11/17/21
3.	Updates after Town meeting	12/20/21
4.	Update access to project	01/11/22
5.	Update project access	01/17/22
6.	Update Fire Department comments	01/20/22
7.	Show distance to "Let"	01/31/22
8.	Address Board Member Mr. Daylor's	03/03/22
	comments and Public comments	

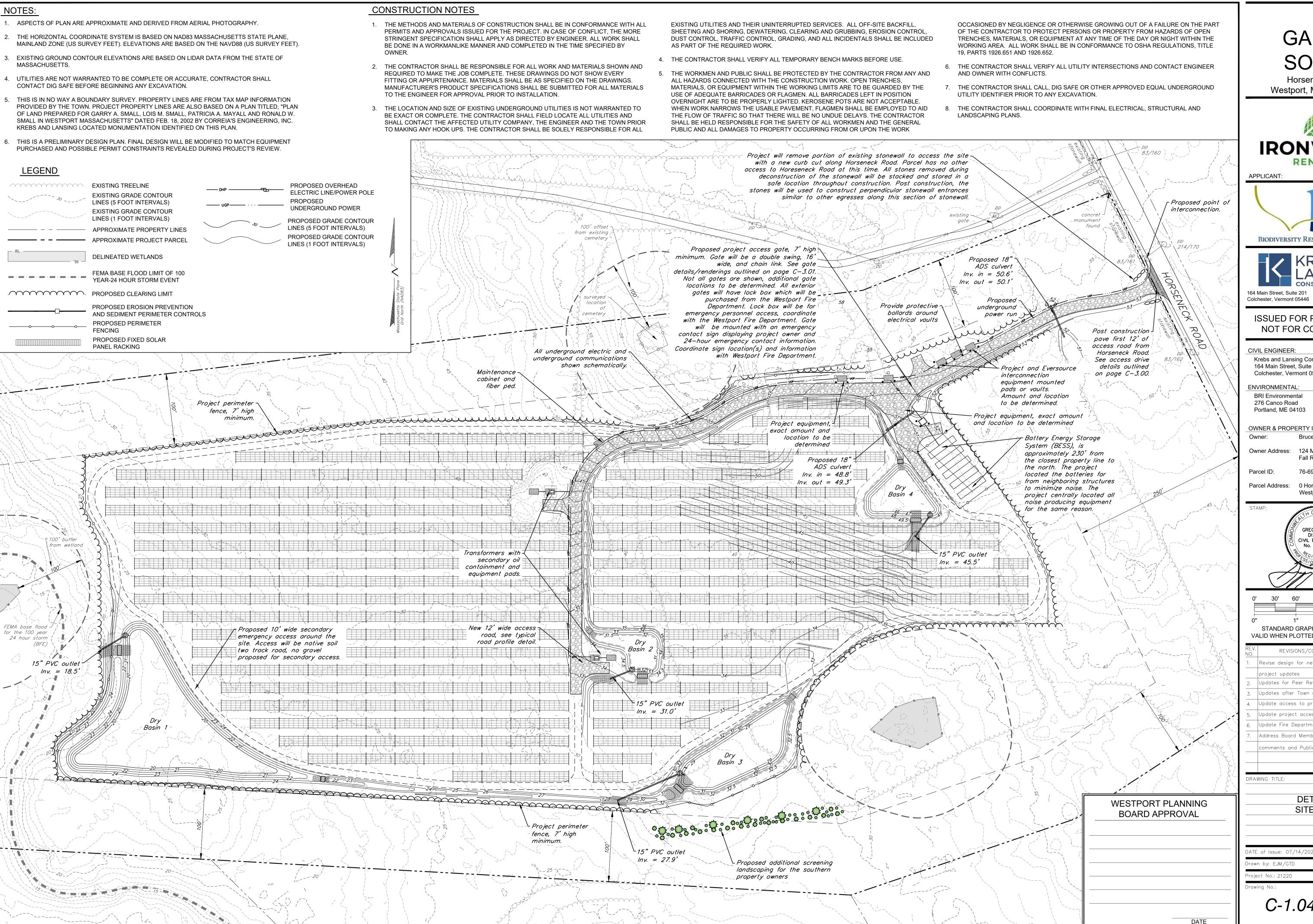
PRELIMINARY SOLAR ARRAY

Checked by: GTD Scale: 1" = 100









Horseneck Road Westport, Massachusetts



APPLICANT:





ISSUED FOR PERMIT REVIEW NOT FOR CONSTRUCTION

CIVIL ENGINEER:

Krebs and Lansing Consulting Engineers, Inc. 164 Main Street, Suite 201 Colchester, Vermont 05446

ENVIRONMENTAL

BRI Environmental 276 Canco Road Portland, ME 04103

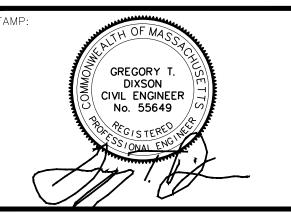
OWNER & PROPERTY INFORMATION: Bruce and Patricia Mayall

Owner Address: 124 Milton Street

76-69S-0

Parcel Address: 0 Horseneck Road Westport, MA 02790

Fall River, MA 02720



STANDARD GRAPHIC SCALE (1" = 60') VALID WHEN PLOTTED ON 24" BY 36" MEDIA

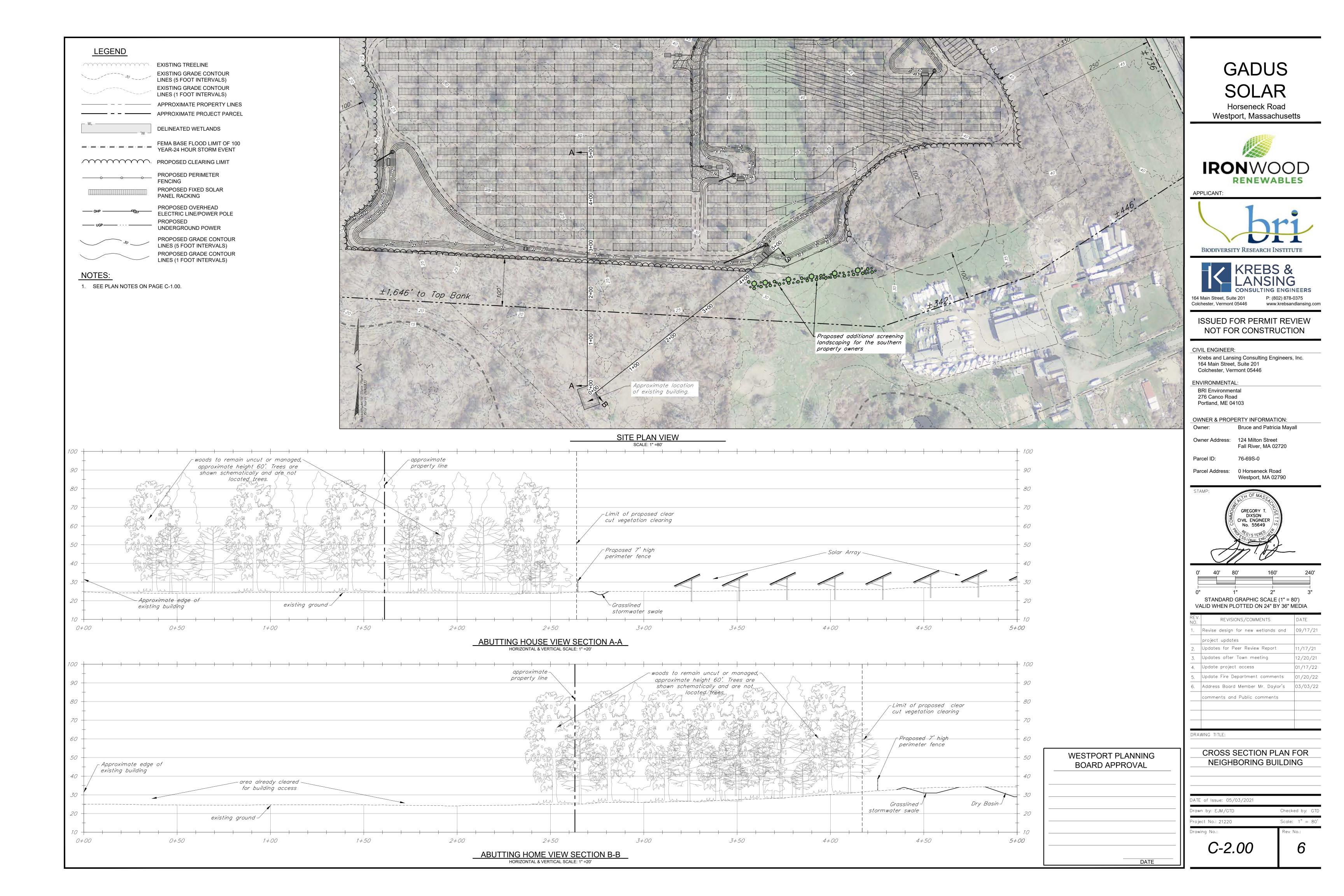
REV. NO.	REVISIONS/COMMENTS	DATE
1.	Revise design for new wetlands and	09/17/21
	project updates	
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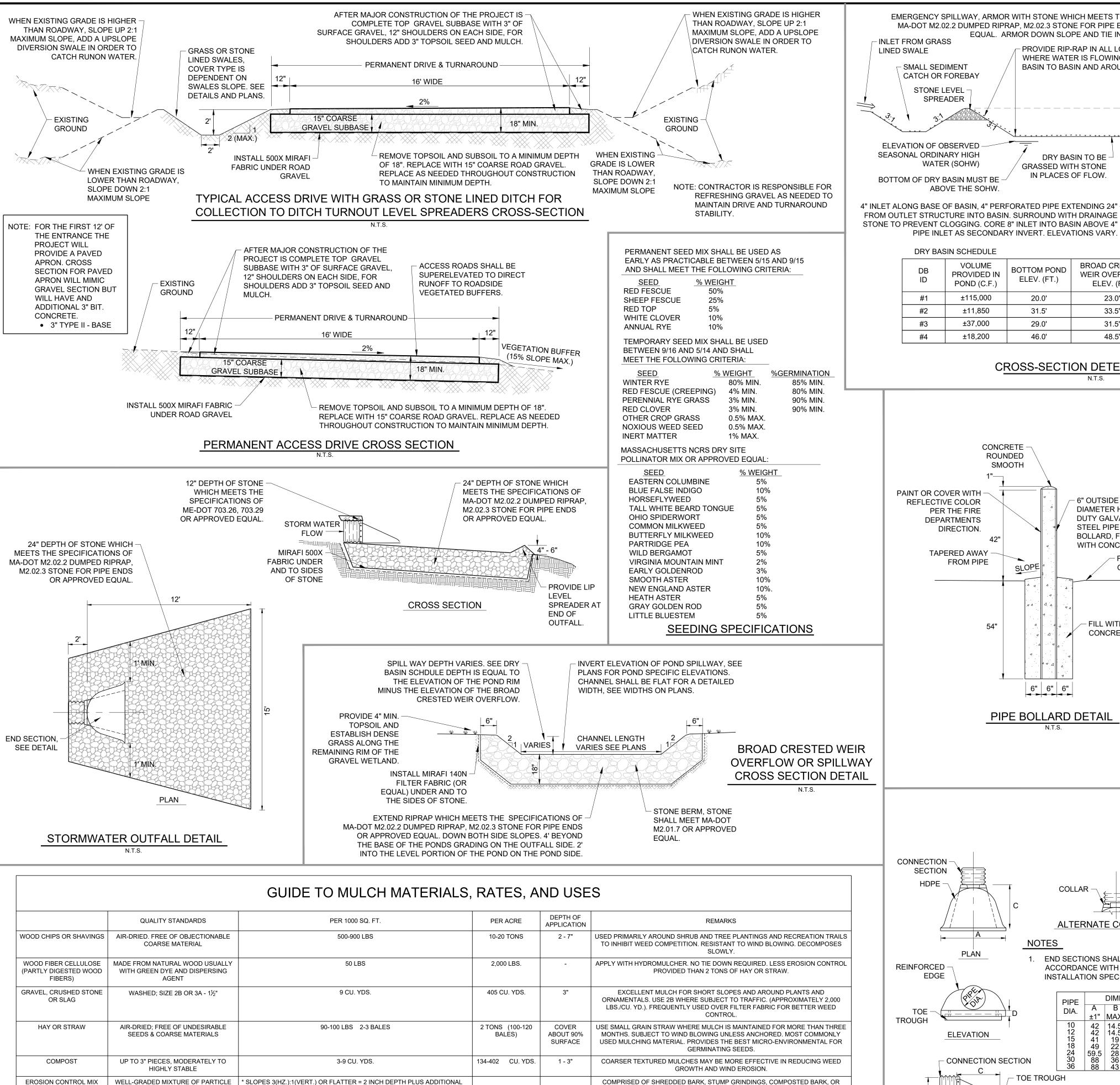
DRAWING TITLE:

DETAILED SITE PLAN

DATE of Issue: 07/14/2021 Drawn by: EJM/GTD Checked by: GT[Project No.: 21220 Scale: 1" = 60'

C-1.04





SIZES. ORGANIC CONTENT BETWEEN | 1/2 INCH DEPTH PER 20 FT. OF SLOPE UP TO 100 FT.

SHALL PASS 6" SCREEN (100%)

80-100%, DRY WEIGHT. PARTICLE SIZE ** SLOPES BETWEEN 3(HZ.):1(VERT.) AND 2(HZ.):1(VERT.) = 4 INCH DEPTH

BY OSPC OR EPSC SPECIALIST

PLUS ADDITIONAL 1/2 INCH PER 20 FT. OF SLOPE UP TO 100 FT.

* SLOPES STEEPER THAN 2(HZ.):1(VERT.) USE OF EROSION CONTROL

MIX AND MULCH DEPTH TO BE REVIEWED AND APPROVED PRIOR TO USE

EMERGENCY SPILLWAY, ARMOR WITH STONE WHICH MEETS THE SPECIFICATIONS MA-DOT M2.02.2 DUMPED RIPRAP, M2.02.3 STONE FOR PIPE ENDS OR APPROVED SEE EQUAL. ARMOR DOWN SLOPE AND TIE INTO BASIN OUTFALL **STORMWATER** - INLET FROM GRASS **OUTFALL DETAIL** PROVIDE RIP-RAP IN ALL LOCATIONS WHERE WATER IS FLOWING FROM - SMALL SEDIMENT BASIN TO BASIN AND AROUND OUTLETS CATCH OR FOREBAY **EMBANKMENT** STONE LEVEL -SPREADER **ELEVATION OF OBSERVED -**SEASONAL ORDINARY HIGH DRY BASIN TO BE WATER (SOHW) **GRASSED WITH STONE** - 15" ADS OUTLET MINIMUM SLOPE IN PLACES OF FLOW. TO PIPE IS 0.01. BOOTED, GLUED BOTTOM OF DRY BASIN MUST BE OR MECHANICALLY CONNECT ABOVE THE SOHW. OUTLET PIPE TO OUTLET STRUCTURE. PROVIDE 4" INLET ALONG BASE OF BASIN, 4" PERFORATED PIPE EXTENDING 24" ANTI-SEEP COLLARS ALONG PIPE.

DRY BASIN SCHEDULE

CONCRETE

1"—

54"

FROM PIPE

ELEVATION

CROSS SECTION

ACCEPTABLE MANUFACTURED PRODUCTS. MAY CONTAIN ROCK < 4" IN DIAMETER.

ORGANICS SHALL BE FIBROUS AND ELONGATED. NO LARGE PORTIONS OF SILTS,

CLAYS OR FINE SANDS.

- CONNECTION SECTION

ROUNDED

SMOOTH

DB ID	VOLUME PROVIDED IN POND (C.F.)	BOTTOM POND ELEV. (FT.)	BROAD CRESTED WEIR OVERFLOW ELEV. (FT.)	TOP OF POND ELEV. (FT.)
#1	±115,000	20.0'	23.0'	24.0'
#2	±11,850	31.5'	33.5'	34.5'
#3	±37,000	29.0'	31.5'	32.5'
#4	±18,200	46.0'	48.5'	49.5'

CROSS-SECTION DETENTION BASIN N.T.S.

6" OUTSIDE

STEEL PIPE

DIAMETER HEAVY

DUTY GALVANIZED

BOLLARD, FILLED

WITH CONCRETE

- FILL WITH

CONCRETE

PIPE BOLLARD DETAIL

- FINISH

GRADE

- USE STAINLESS

STEEL METAL

THREADED **FASTENER**

ALTERNATE CONNECTIONS

ACCORDANCE WITH THE MANUFACTURERS

DIMENSIONS

A B C D

±1" |MAX. | ±1" | ±1-½

HDPE END SECTION DETAIL

1. END SECTIONS SHALL BE INSTALLED IN

INSTALLATION SPECIFICATIONS.

DIA.

TOE TROUGH

CONSTRUCTION OVERSIGHT NOTES

CONSTRUCTION SEQUENCE:

CONSTRUCTION CAN BE STARTED NO LATER THAN SEPTEMBER 1ST. IF SIDE SLOPES AND BANKS CANNOT BE REVEGETATED AND STABILIZED BY THE END OF THE GROWING SEASON, BASIN CONSTRUCTION SHOULD BE DELAYED TO THE FOLLOWING GROWING SEASON. SEEDING MUST OCCUR BEFORE SEPTEMBER 15TH OR OTHER STABILIZATION MEASURES MUST BE IMPLEMENTED BEFORE WINTER. DO NOT DISCHARGE STORMWATER TO THE BASIN UNTIL THE BASIN IS FULLY STABILIZED OR PROVIDES A SEDIMENT BARRIER AT THE OUTLET.

CONSTRUCTION OVERSIGHT

- EMBANKMENT FILLS SHALL BE FREE OF FROZEN SOIL. ROCKS OVER 6", SOD, BRUSH STUMPS, TREE ROOTS, WOOD, OR OTHER PERISHABLE MATERIALS. EMBANKMENT FILLS SHALL BE COMPACTED USING METHODS THAT WOULD GUARANTEE A FILL DENSITY OF 90% OF THE MAXIMUM DENSITY AS DETERMINED BY STANDARD PROCTOR (ASTM-698). FILLS SHALL BE CONSTRUCTED IN 12" LIFTS.
- ALL AREAS OF CONCENTRATED FLOW IN OR OUT OF THE BASIN ARE TO BE ARMORED IN STONE RIP-RAP. STONE SHALL MEET THE SPECIFICATIONS OF MA-DOT M2.02.2 DUMPED RIPRAP, M2.02.3 STONE FOR PIPE ENDS OR APPROVED EQUAL
- ALL THE MATERIAL USED FOR THE CONSTRUCTION OF THE BASIN MUST BE CONFIRMED AS SUITABLE BY THE DESIGN ENGINEER. INSPECTION OF THE DRY POND BY A PROFESSIONAL ENGINEER
- SHALL CONSIST AT A MINIMUM OF WEEKLY SITE VISITS TO THE SITE TO INSPECT EACH DRY POND. THIS SHALL INCLUDE MATERIAL AND PLACEMENT, FROM INITIAL GROUND DISTURBANCE TO FINAL STABILIZATION OF THE POND SIDESLOPES. INSPECTIONS SHALL INCLUDE WITNESSING THE INSTALLATION OF BERMS AND EMERGENCY SPILLWAYS.

TESTING AND SUBMITTALS:

THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF LABORATORY TESTING SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR CONFIRMATION.

EACH COMPONENT OF THE BASIN. ALL RESULTS OF FIELD AND

BLANK

WESTPORT PLANNING

BOARD APPROVAL

DATE

GADUS Horseneck Road

Westport. Massachusetts



APPLICANT:





ISSUED FOR PERMIT REVIEW NOT FOR CONSTRUCTION

P: (802) 878-0375

www.krebsandlansing.com

CIVIL ENGINEER:

164 Main Street, Suite 201

Colchester, Vermont 05446

Krebs and Lansing Consulting Engineers, Inc. 164 Main Street, Suite 201 Colchester, Vermont 05446

ENVIRONMENTAL

BRI Environmental 276 Canco Road Portland, ME 04103

OWNER & PROPERTY INFORMATION:

Owner: Bruce and Patricia Mayall

Owner Address: 124 Milton Street

Parcel ID: 76-69S-0

Parcel Address: 0 Horseneck Road Westport, MA 02790

Fall River, MA 02720

GREGORY 1

CIVIL ENGINEER No. 55649

		-
REV. 10.	REVISIONS/COMMENTS	DATE
1.	Revise design for new wetlands and	09/17/21
	project updates	
2.	Updates for Peer Review Report	11/17/21
3.	Updates after Town meeting	12/20/21
4.	Update Fire Department comments	01/20/22
5.	Address Board Member Mr. Daylor's	03/03/22
	comments and Public comments	

DRAWING TITLE: DETAILS

DATE of Issue: 05/03/2021 Drawn by: EJM/GTD

Scale: N/A Project No.: 21220

C-3.00

Checked by: GTD

1. TYPICAL GRASS SWALE. SEE PLAN VIEW FOR LOCATIONS.

2. TYPICAL SIDE SLOPES TO BE 2:1.

NOTES

- 3. DURING CONSTRUCTION TEMPORARILY SEEDED AND HEAVILY MULCHED. EROSION CONTROL BLANKET MAY BE NECESSARY IN STEEPER SLOPES. INSTALL BLANKET IF EROSION PERSISTS AND/OR GRASS IS HAVING DIFFICULTY GERMINATING. POST CONSTRUCTION CONTRACTOR SHALL RE-GRADE ANY EROSION. REMOVE BUILD UP SEDIMENTS. PERMANENT SEED AND HEAVILY RE-MULCH.
- CROSS-SECTION SHALL BE EXCAVATED TO NEAT LINES AND GRADES. OVER-EXCAVATED AREAS SHALL BE BACKFILLED WITH MOIST SOIL COMPACTED TO DENSITY OF SURROUNDING MATERIAL
- 5. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF IN APPROVED UPLAND AREA (PER ON SITE PLAN COORDINATOR) SUCH THAT IT DOES NOT INTERFERE WITH FUNCTION.

GRASS SWALE CROSS SECTION

NATURAL ORGANIC FIBER

WIDTH: 6.67 feet (2.03 m)

• AREA: 80 sq. yd. (50 m²)

LENGTH: 108 feet (32.92 m)

WEIGHT: 46.4 lbs. ± 10% (21.05 kg)

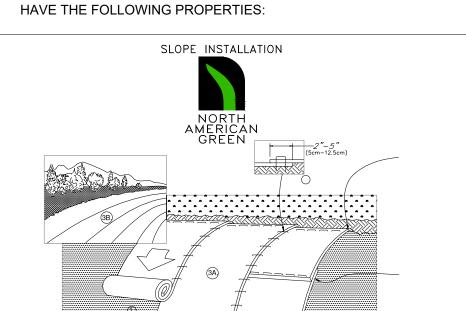
EROSION CONTROL BLANKET

NORTH AMERICAN GREEN S75BN

MATERIAL SPECIFICATIONS:

- EROSION CONTROL BLANKET SHALL BE A MACHINE-PRODUCED MAT OF 100% AGRICULTURAL STRAW.
- THE BLANKET SHALL BE OF CONSISTENT THICKNESS WITH THE STRAW EVENLY DISTRIBUTED OVER THE ENTIRE AREA OF THE MAT. THE BLANKET SHALL BE COVERED ON THE TOP SIDE WITH 100% BIODEGRADABLE WOVEN NATURAL ORGANIC FIBER NETTING HAVING AN APPROXIMATE 1/2" X 1" MESH AND BE SEWN TOGETHER WITH
- STRAW EROSION CONTROL BLANKET SHALL BE S75BN AS MANUFACTURED BY NORTH AMERICAN GREEN, INC (812-867-6632) OR EQUIVALENT **EROSION CONTROL BLANKET SHALL**

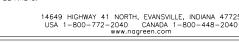
BIODEGRADABLE THREAD.

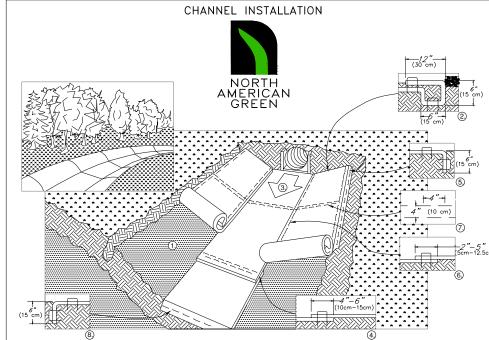


- NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN
- . PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIA AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/ST IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM. STAPLE SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5cm-12.5cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.

NOTE: BLANKET SHALL BE USED ON SLOPES 3:1 OR STEEPER

*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.





2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BETYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.

. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDI AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM". STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN. 4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" (10cm-15cm) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER TO SECURE BLANKETS. . FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATEI 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. 6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"-5" (5cm-12.5cm) (DEPENDING ON BLANKET TYPE) AND STAPLED.
TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH"ON THE BLANKET BEING OVERLAPPED.

. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9m-12m) INTERVALS. US A DOUBLE ROW OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL. I. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

CRITICAL POINTS 14649 HIGHWAY 41 NORTH, EVANSVILLE, INDIANA 47725 USA 1-800-772-2040 CANADA 1-800-448-2040 www.nogreen.com

INVERT OUTFALL INVERT IN H8" x W24" TOP OF 4" PVC MH 15" PVC | 15" PVC OPENING MATERIAL CONTENT: #1 | 19.5' | 18.5' | 20.0' 21.4' 25.0' STRAW: 100% (0.50 lbs/sq.yd.)(0.27 31.0' 31.5' 32.1' 35.5' #2 | 31.4' | NETTING: ONE SIDE ONLY, LENO #3 | 28.9' | 27.9' | 29.0' 30.2' 33.5' WOVEN 100% BIODEGRADABLE

MANHOLE SCHEDULE

#4 | 45.9 | 45.5

THE BASIN.

(APPROX. WEIGHT 9.3 lbs./100 sq. ft.) *NOTE: MANHOLE OPENING WILL BE 8" HIGH BY 24" WIDE. THE OPENING'S THREAD: BIODEGRADABLE ELEVATION IS DESIGNED TO NOT BE USED FOR SMALLER STORM EVENTS, 2-YEAR 24-HOUR AND SMALLER STORMS. THE SMALLER PHYSICAL SPECIFICATIONS (ROLL): STORMS WILL OUTLET THROUGH THE 4" PIPE AT THE BOTTOM OF

46.0'

47.0'

50.5'

- THE PERMIT. CAST GRATE INTO CONCRETE. NEENAH SOLID -MANHOLE COVER MARKED AS STORM OR
 - 8. THE INSPECTORS CONTACT INFORMATION SHALL BE PROVIDED TO CONSTRUCTION ENGINEER TO BE INCLUDED IN THE PROJECTS SWPPP

1. ADDITIONAL BRACING MAY BE REQUIRED ON LONGER FENCE RUNS. CONTRACTOR TO ADD ADDITIONAL BRACING

- ALL FENCING MATERIALS, OTHER THAN THE SOLIDLOCK FIXED

WOVEN WIRE MESH SHALL

MATCH FIXED KNOT GAME

FENCE COLOR SELECTED.

DEPTH OF

HOLE 5'-6" MIN.

12"

BE VINYL COATED TO

KNOT GAME FENCE, SHALL BE BLACK VINYL COATED

USE CHAIN LINK

GATES AS

- LATCH

- TRUSS ROD

ADJUSTING

UNIT

FENCE FABRIC ON

SPECIFIED BELOW

WHEN CONTRACTOR OBSERVES CORNER POST DEFLECTION DURING FENCE TENSINOING/FASTENING.

2. FABRIC TO BE FASTENED TO POSTS WITH STAPLES APPROVED BY THE ENGINEER

DROP -

DOUBLE SWING GATE

(RENDERING)

N.T.S.

LATCH

· TENSION -

BAND

0.192 INCH

DIAMETER

2" MESH.

CORNER POST

EMBEDDED

IN CONCRETE 5'

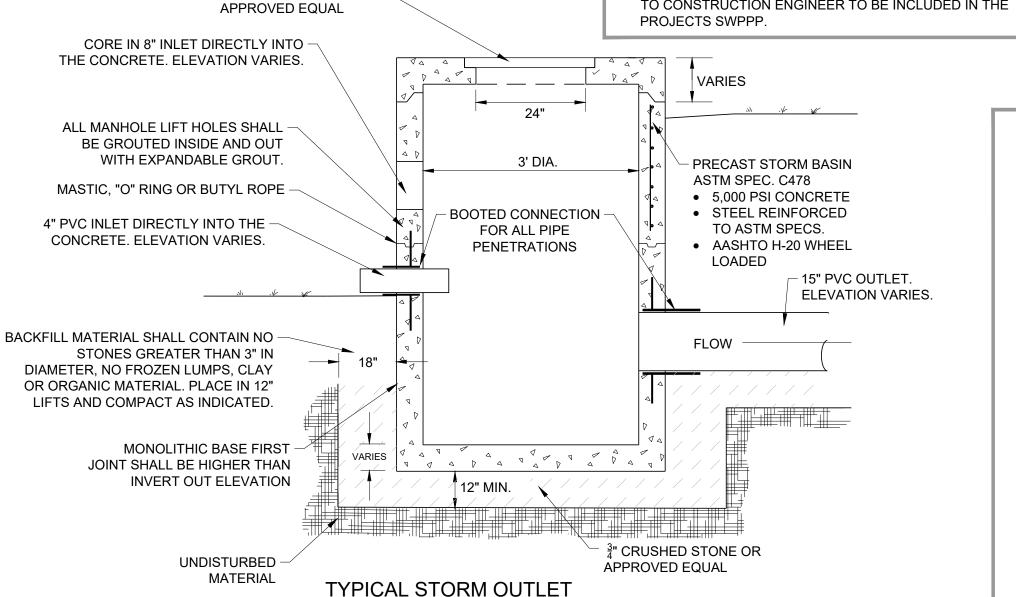
MESH WIRE IN

BOTTOM AND

KNUCKLED.

TOP SELVAGES

16' (MIN.) FACE TO FACE



STRUCTURE FOR DRY BASIN

NOTES

GATE POSTS, MIN. 6" -

TREATED WOOD OR

CEDAR POST

7' MIN.

DEPTH OF

HOLE 5'-6"

MIN.

12"

DIAMETER PRESSURE

PROPOSED 7' MIN. HIGH

PERIMETER FENCE, SEE

FENCE SPECIFICATION

FOR FENCE MATERIAL

SEE MANUFACTURES

SPECIFICATIONS FOR

ASTENING FENCING

TENSIONING AND

TO POSTS

PAINT ALL GALVANIZED

FIXED KNOT GAME

2. EMERGENCY CONTACT

IDENTIFIES THE

PHONE NUMBER.

PIPE AND FITTINGS TO MATCH SOLIDLOCK

FENCE. PAINT SHALL BE

SUITABLE FOR USE ON

GALVANIZED SURFACES

SIGN SHALL BE PLACED

ON THE GATE, WHICH

PROJECT OWNER AND

PROVIDES A 24-HOUR

EMERGENCY CONTACT

CONTRACTOR SHALL SUBMIT

SHOP DRAWINGS TO ENGINEER

FOR APPROVAL PRIOR TO

ORDERING AND

CONSTRUCTING FENCE.

. INSPECTIONS SHALL BE PERFORMED AT MINIMUM ONCE EVERY 7 CALENDAR DAYS BUT ALSO PRIOR TO AND 24 HOURS AFTER A WET WEATHER EVENT. A "WET WEATHER EVENT" IS DEFINED AS 0.25 INCHES OR GREATER IN A 24 HOUR PERIOD. 5. THE SCOPE OF CONSTRUCTION INSPECTIONS SHALL INCLUDE BUT ARE NOT LIMITED TO ALL THE EROSION AND SEDIMENT CONTROL MEASURES ON SITE. DOCUMENTATION OF THE

PROJECT SITE.

CONSTRUCTION EROSION AND

SEDIMENT CONTROL INSPECTOR

STORMWATER INSPECTOR" FOR THE ENTIRETY OF

. THE CONTRACTOR SHALL DESIGNATE A "QUALIFIED PROJECT

CONSTRUCTION. THE INSPECTOR OR THEIR DESIGNEE SHALL

2. THE INSPECTOR SHALL BE KNOWLEDGEABLE IN PRINCIPLES

STORMWATER QUALITY, TO ASSESS EFFECTIVENESS OF

CONSTRUCTION BEST MANAGEMENT PRACTICES (BMPs)

SELECTED TO CONTROL QUALITY OF STORMWATER

. THE INSPECTOR SHALL BE RESPONSIBLE FOR ON-SITE

DISCHARGES FROM CONSTRUCTION ACTIVITY.

BE ON-SITE ON A DAILY BASIS DURING ACTIVE CONSTRUCTION.

AND PRACTICES OF EROSION PREVENTION AND STORMWATER

CONTROL. IMPLEMENTATION AND POSSESS SKILLS TO ASSESS

CONDITIONS AT THE CONSTRUCTION SITE THAT COULD IMPACT

IMPLEMENTATION OF THIS EROSION AND SEDIMENT CONTROL

PLAN, INCLUDING INSPECTIONS, MONITORING AND REPORTING.

6. CONSTRUCTION INSPECTION AND CORRECTIVE ACTION DOCUMENTATION RECORDS SHALL BE MAINTAINED FOR A MINIMUM OF 3 YEARS. THIS DOCUMENTATION SHALL BE MAINTAINED BY THE CONTRACTOR UNLESS OTHERWISE AUTHORIZED BY THE OWNER. CORRECTIVE ACTIONS SHOULD BE STARTED SAME DAY COMPLETED WITHIN 7 DAYS OR BEFORE THE NEXT STORM EVENT. WHICHEVER IS FIRST.

OVERALL DISTURBANCE FOR THE PROJECT SITE. REVIEW OF

ALL STOCKPILE AREAS AND VEHICLE EGRESSES FROM THE

- THE INSPECTOR SHALL HAVE AUTHORITY TO STOP AND/OR MODIFY CONSTRUCTION ACTIVITIES AS NECESSARY TO COMPLY WITH THESE PLANS AND TERMS AND CONDITIONS OF
- STORM EVENT. 7. CONTRACTOR IS RESPONSIBLE TO REMOVE ALL EROSION AND SEDIMENT CONTROL BMPs WITHIN 30

CONTRACTOR SHALL FENCE MATERIAL: SOLIDLOCK FIXED KNOT GAME FENCE SPECIFICATION: SUBMIT SHOP • FENCE FABRIC SHALL BE BEKAERT ZA-6" FIXED KNOT GAME FENCE DRAWINGS TO 96" HIGH

ENGINEER FOR 12.5 GAUGE WIRE

INSTALL ALL FENCE COMPONENTS IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS, SEE "FIXED KNOT BRACE

CONSTRUCTION LIMITS FOR

EROSION AND SEDIMENT CONTROL

1. ALL EROSION AND SEDIMENT CONTROL MEASURES

PLAN SET, THE MEASURES MANUFACTURERS

PROTECTION, LATEST REVISION. CONTRACTOR

2. CONTRACTOR SHALL LIMIT EXCAVATION AND

EARTHWORK TO NO MORE THAN 5 ACRES

AREAS OF COMPLETED EXCAVATION AND

3. EXPOSED OR OPEN AREA FREE OF VEGETATION

TO THAT WHICH CAN BE MULCHED IN ONE DAY.

4. CONTRACTOR SHALL MINIMIZE THE AMOUNT OF TIME

AN AREA UNDERGOING ACTUAL CONSTRUCTION

AREAS WHICH ARE INITIALLY DISTURBED BUT

FURTHER CONSTRUCT IS PLANNED MUST BE

WILL BE LEFT EXPOSED OR FREE OF VEGETATION.

TEMPORARILY STABILIZED WITHIN 14 DAYS, IF THE

AREAS ARE BEING LEFT FOR AN EXTENDED PERIOD

OF TIME, AREAS WHICH ARE CONSIDERED FINISHED

SHALL BE PERMANENTLY STABILIZED WITHIN 14

5. ALL EROSION AND SEDIMENT CONTROL BMPs SHALL

CONTRACTOR SHALL MAINTAIN THE BMPS

6. REPAIR AND/OR REPLACE ANY EROSION AND

SEDIMENT CONTROL BMPs WHICH HAVE BEEN

OR OTHERS, THE REPAIR SHALL BE UNDERWAY

PROBLEM HAS BEEN IDENTIFIED BY THE INSPECTOR

WITHIN THE END OF THE NEXT WORKING DAY AND

COMPLETED WITHIN 7 DAYS OR BEFORE THE NEXT

DAYS OF PERMANENT STABILIZATION. PERMANENT

STABILIZATION IS DEFINED AS 70% GRASS CATCH IN

DAMAGED OR NEED MAINTENANCE. ONCE A

INDIVIDUAL DETAILS FOR EACH BMP.

THROUGHOUT CONSTRUCTION. REFER TO

BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE.

DAYS OF THE FINISH WORK.

VEGETATED AREAS.

SITE AT ALL TIMES.

SHALL HAVE A COPY OF THE LATEST REVISION ON

CONCURRENT THROUGHOUT THE CONSTRUCTION

EARTHWORK PRIOR TO MOVING ONTO A NEW AREA.

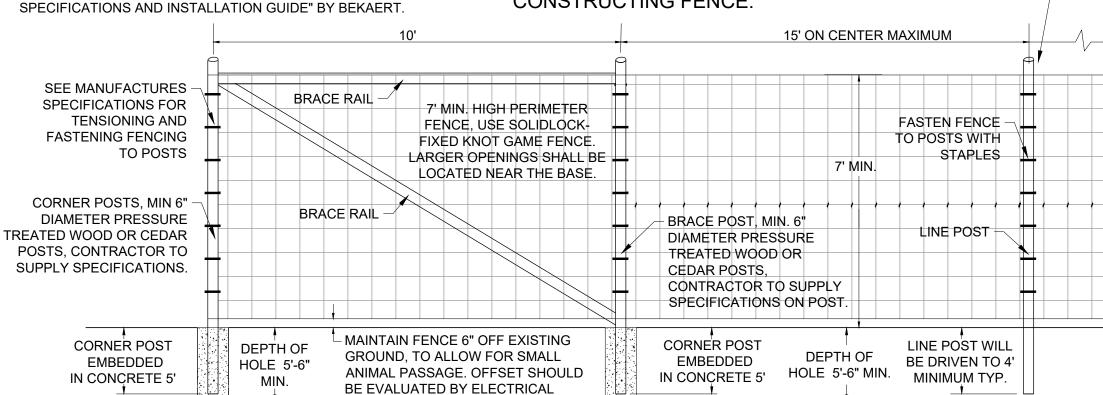
FROM CONSTRUCTION ACTIVITY SHALL BE LIMITED

SITE AT ONE TIME. TEMPORARY STABILIZE ALL

SHALL BE PERFORMED IN ACCORDANCE WITH THIS

SPECIFICATIONS, DEPARTMENT OF ENVIRONMENTAL

 CLASS 3 GALVANIZED APPROVAL PRIOR TO ORDERING AND CONSTRUCTING FENCE



EPSC CONSTRUCTION NOTES:

SWALES, WATER BARS, AND/OR CHECK DAMS.

STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:

WETLANDS AND STREAMS).

PRACTICABLE.

TO THOSE AREAS.

SLOPE DRAIN STRUCTURE.

A. LESS THAN ±5% SLOPE

C. VEGETATED

DITCHES.

BODY, INCLUDING A DITCH

FEASIBLE, BUT NOT IN RESOURCE AREAS.

AREAS WHERE DUST MAY BE GENERATED.

1. EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED TO THE EXTENT

2. A VEGETATED BUFFER SHALL BE MAINTAINED FOR WATER BODIES WHERE FEASIBLE (E.G.,

3. TO THE EXTENT PRACTICABLE, SURFACE FLOW SHALL BE DIVERTED AWAY FROM EXPOSED

RESOURCE AREAS (E.G., WETLANDS, STREAMS, RTE PLANT SPECIES) SHALL BE FLAGGED

PRIOR TO ANY CONSTRUCTION RELATED ACTIVITIES OCCURRING WITHIN CLOSE PROXIMITY

EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN

APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT

DOES NOT VIOLATE WATER QUALITY STANDARDS OR CONTRIBUTE TO EROSION. DEWATERING

DETAILS SHALL BE REVIEWED AND APPROVED BY THE CONSTRUCTION ENGINEER PRIOR TO

CONCENTRATED RUNOFF SHALL NOT FLOW DOWN STEEP SLOPES UNLESS CONTAINED

A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.

WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL (SEE DETAILS), FLUME, OR

UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING

B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES, WHERE

8. WHERE FEASIBLE, ALL SEDIMENT REMOVED FROM SEDIMENT CONTROL PRACTICES AS PART

B. AT LEAST 100 FEET FROM ANY DOWNSLOPE WATER BODY OR CONVEYANCE TO A WATER

OF MAINTENANCE SHALL BE DISPOSED OF IN AN AREA THAT IS AT LEAST ONE OF THE

FOLLOWING, WITH IMMEDIATE STABILIZATION FOLLOWING DISPOSAL OF MATERIAL:

9. DISTURBED AREAS BORDERING OR DRAINING TO EXISTING ROADS SHALL HAVE AN

APPROPRIATE SEDIMENT BARRIER (E.G., SILT FENCE) SPANNING THE EDGE OF THE

10. IN ADVANCE OF PREDICTED RAINFALL OR SNOWMELT, ALL EPSC MEASURES THAT ARE

NEEDED. IF NECESSARY, THIS SHALL INCLUDE TEMPORARY STABILIZATION OF ALL

DISTURBED SOILS ON THE SITE IN ADVANCE OF THE ANTICIPATED RUNOFF PERIOD.

11. DUST CONTROL SHALL BE HANDLED VIA WATER APPLICATION TO ROADWAYS AND OTHER

DISTURBANCE TO PREVENT WASHING OF SEDIMENT ONTO ROADWAYS OR INTO ROAD

LOCATED IN ACTIVE AREAS OF EARTH DISTURBANCE SHALL BE INSPECTED AND REPAIRED, AS

LINE POSTS 15' ON CENTER MAXIMUM.

LINE POSTS SHALL BE MIN. 4" DIAMETER

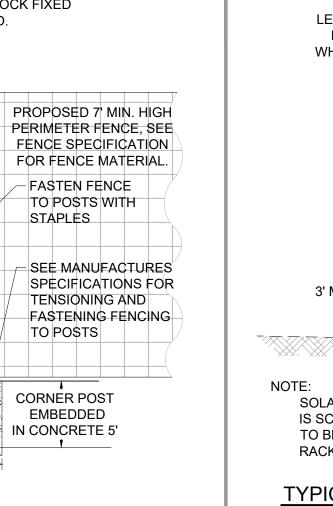
PRESSURE TREATED WOOD OR CEDAR

AS CORNER POSTS ON THIS DETAIL.

POST CONSTRUCTED IN SIMILAR FASHION

SOILS VIA DIVERSION BERMS, EARTH DIKES, PERIMETER DIKES/SWALES, TEMPORARY

TYPICAL FIXED KNOT GAME FENCE AROUND ARRAY (RENDERING)



STAPLES

LENGTH IS DETERMINED BY PV MODULE DIMENSIONS, WHICH CAN VARY SLIGHTLY BETWEEN DIFFERENT **MANUFACTURERS** 10' -12' **RACKING** SCHEMATIC. EXACT **DESIGN TO BE** 3' MIN. - EXISTING **DETERMINED** GROUND - POST EMBEDMENT TO BE DETERMINED SOLAR ARRAY CROSS SECTION IS SCHEMATIC. FINAL DESIGN TO BE DETERMINED BY THE RACKING MANUFACTURER. TYPICAL SOLAR ARRAY CROSS SECTION (RENDERING)

ENGINEER TO ENSURE COMPLIANCE

WITH ELECTRICAL CODE.

WESTPORT PLANNING **BOARD APPROVAL**

DATE

GADUS

Horseneck Road Westport, Massachusetts



APPLICANT:





ISSUED FOR PERMIT REVIEW NOT FOR CONSTRUCTION

P: (802) 878-0375

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CIVIL ENGINEER:

164 Main Street, Suite 201

Colchester, Vermont 05446

Krebs and Lansing Consulting Engineers, Inc. 164 Main Street, Suite 201 Colchester, Vermont 05446

ENVIRONMENTAL

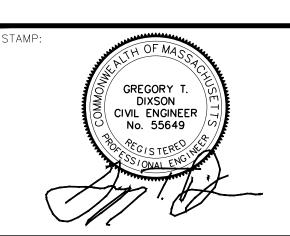
BRI Environmental 276 Canco Road Portland, ME 04103

OWNER & PROPERTY INFORMATION: Owner: Bruce and Patricia Mayall

Owner Address: 124 Milton Street Fall River, MA 02720

Parcel ID: 76-69S-0

Parcel Address: 0 Horseneck Road Westport, MA 02790

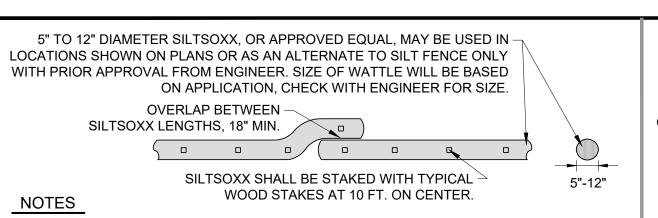


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RE\ NO.	T REVISIONS / UNMARENTS	DATE
1.	Revise design for new wetlands and	09/17/2
	project updates	
2.	Updates for Peer Review Report	11/17/21
3.	Update Fire Department comments	01/20/2
4.	Update distance under fence	01/31/2
5.	Address Board Member Mr. Daylor's	03/03/2
	comments and Public comments	
DR	AWING TITLE:	

DETAILS

DATE of Issue: 05/03/2021 Drawn by: EJM/GTD Checked by: GT[Scale: N/A Project No.: 21220

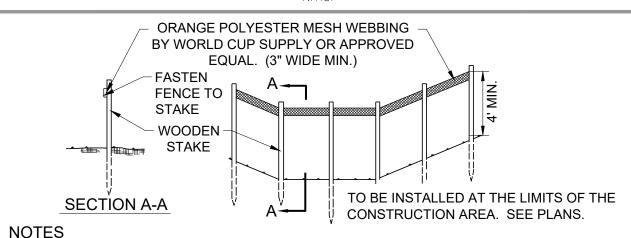
C-3.07



1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE, AND REMOVAL OF SILTSOXX IN ALL LOCATIONS SHOWN ON THE PLANS. WATTLE MAY BE LEFT IN PLACE IF THE CONTRACTOR SEEDS AND MULCHES OVER SILTSOXX FOR GROWTH POST CONSTRUCTION.

- 2. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND ADDITIONAL SILTSOXX WILL BE ADDED WHEN SEDIMENT REACHES HALF OF PRODUCT HEIGHT.
- 3. WHEN INSTALLING LENGTHS OF WATTLE, LENGTHS WILL OVERLAP BY MINIMUM 18" WHEN TRANSITIONING TO A NEW LENGTH OF SILTSOXX.
- 4. CONTRACTOR SHALL REFER TO ALL MANUFACTURES SPECIFICATIONS AND DETAILS.
- 5. SILTSOXX IS A SPECIFIC MANUFACTURER, OTHER MANUFACTURERS WITH EQUAL PRODUCTS MAY BE USED IF APPROVED BY ENGINEER.
- 6. SILTSOXX CAN BE USED AS A SILT FENCE ALTERNATIVE, WITH PRIOR APPROVAL OF THE ENGINEER.

TYPICAL SILTSOXX SEDIMENT CONTROL



- . ACCEPTABLE EPSC MEASURE DETAILS ARE PROVIDED BELOW.
- 2. LIMITS OF DISTURBANCE (OR "CONSTRUCTION DEMARCATION") SHALL BE INSTALLED PRIOR TO ANY EARTH DISTURBING ACTIVITIES.
- BARRIER TAPE/ROPE: FOR USE WHERE PROPOSED DISTURBANCE BORDERS NON-WOODED, VEGETATED AREAS MORE THAN 100 FT FROM THE NEAREST WATER RESOURCE (STREAM, BROOK, LAKE, POND, WETLAND, ETC.). BARRIER TAPE IS HIGH VISIBILITY FIBERGLASS TAPE, MINIMUM 3" IN WIDTH COMMONLY USED IN SKI AREAS FOR DEMARCATING CLOSED AREAS. BARRIER TAPE AND ROPE SHOULD BE ATTACHED TO STAKES, AT A MINIMUM HEIGHT OF 4 FT FROM THE GROUND.
- I. MINIMUM 1 TO 2 ROWS OF MESH BARRIER TAPE TO BE INSTALLED ALONG CONSTRUCTION PERIMETER.
- 5. EACH ROW OF BARRIER TAPE TO BE 3" WIDE MINIMUM.

BARRIER TAPE TO BE ORANGE.

DISTANCE FROM RECIEVING

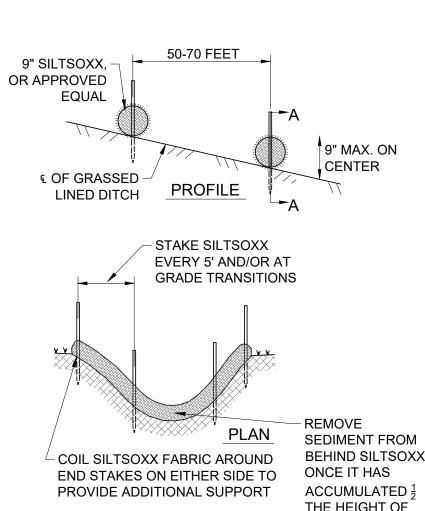
WATER AND ALL WATER RESOURCE

AREAS (WRA

- 7. SECURE BARRIER TAPE TO STAKES OR EXISTING TREE TRUNKS WITH BOTTOM ROW AT 4' DISTANCE FROM GROUND SURFACE (MINIMUM).
- 8. MAINTAIN AND REPLACE AS NEEDED. REMOVE AT COMPLETION OF PROJECT PER OSPC
- 9. IN EVENT THE OSPC DETERMINES BARRIER TAPE IS NOT SUFFICIENT, REPLACE WITH ORANGE CONSTRUCTION FENCE OR SNOW FENCE.

TYPICAL CONSTRUCTION LIMIT BARRIER

SLOPE



THE HEIGHT OF THE WATTLE



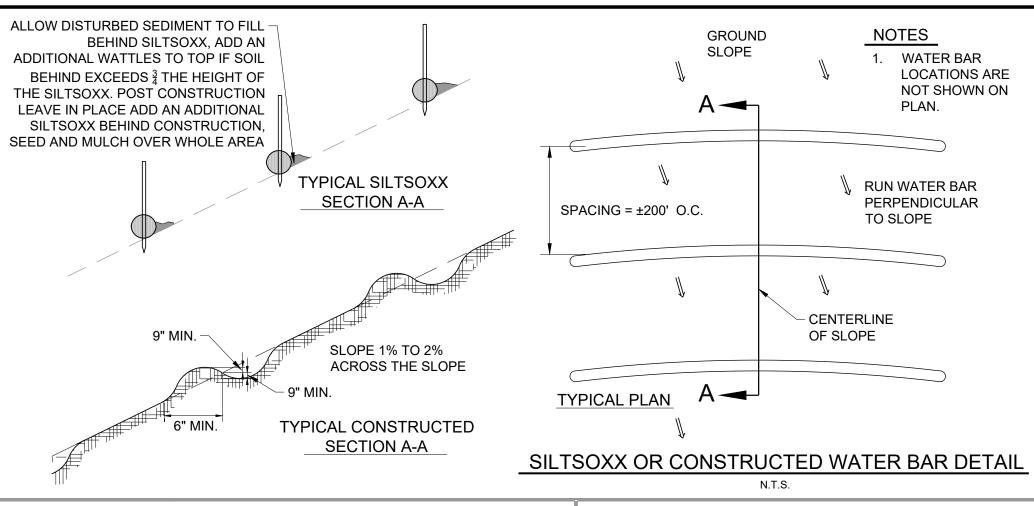
ACCEPTABLE EPSC MEASURE

- 1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE, AND REMOVAL OF SILTSOXX IN ALL LOCATIONS SHOWN ON THE PLANS. SILTSOXX MAY BE LEFT IN PLACE IF THE CONTRACTOR SEEDS AND MULCHES SILTSOXX FOR GROWTH POST CONSTRUCTION.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND ADDITIONAL SILTSOXX WILL BE ADDED WHEN SEDIMENT REACHES HALF OF PRODUCT HEIGHT.
- 3. WHEN INSTALLING LENGTHS OF SILTSOXX, LENGTHS WILL OVERLAP BY MINIMUM 18" WHEN TRANSITIONING TO A NEW
- 4. CONTRACTOR SHALL REFER TO ALL MANUFACTURES SPECIFICATIONS AND DETAILS.

LENGTH OF SILTSOXX.

- 5. SILTSOXX CAN ONLY BE USED IN A GRASS LINED SWALE. MAY NOT BE USED IN STONE LINED SWALES.
- SILTSOXX CHECK DAM CAN ONLY BE USED IN CHANNELS WITH SLOPES LESS THAN 5%.
- 5. SILTSOXX IS A SPECIFIC MANUFACTURER, OTHER MANUFACTURERS WITH EQUAL PRODUCTS MAY BE USED IF APPROVED BY ENGINEER.

TYPICAL SILTSOXX CHECK DAM DETAIL



NOTES

- PERIMETER CONTROLS SHALL BE UTILIZED IN SMALL AREAS < 1 ACRE. IN AREAS > 1 ACRE, TEMPORARY SEDIMENT TRAPS OR TEMPORARY SEDIMENT BASINS ARE TO BE UTILIZED.
- 2. PERIMETER CONTROLS SHALL BE INSTALLED ON DOWNSLOPE SIDE OF PLANNED EARTH DISTURBANCE.
- . PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO ANY EARTH DISTURBING ACTIVITIES WITHIN UPSLOPE CONTRIBUTING AREA.
- 4. SILT FENCE SHALL NOT BE USED AS CONSTRUCTION DEMARCATION.
- 5. SILTSOXX CAN BE USED AS A SILT FENCE ALTERNATIVE, WITH PRIOR APPROVAL OF THE ENGINEER. SEE DETAIL.
- 6. IF SILT FENCE IS INSTALLED WHEN GROUND IS FROZEN, A GRAVEL, SHOT ROCK, OR SAND BALLAST MUST BE USED.

SILT FENCE SPACING CHART

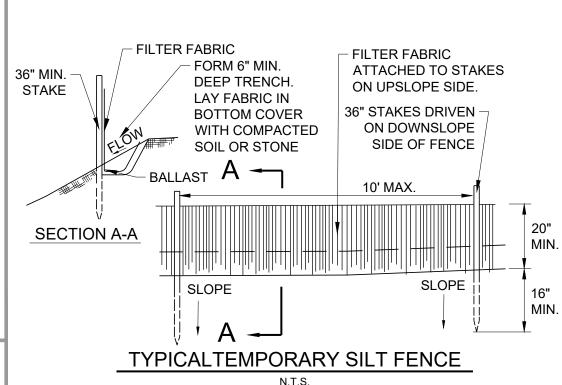
15 FT. OR LESS

SLOPE SPACING

> 20%

5% TO 10% | 50 FT. OR LESS

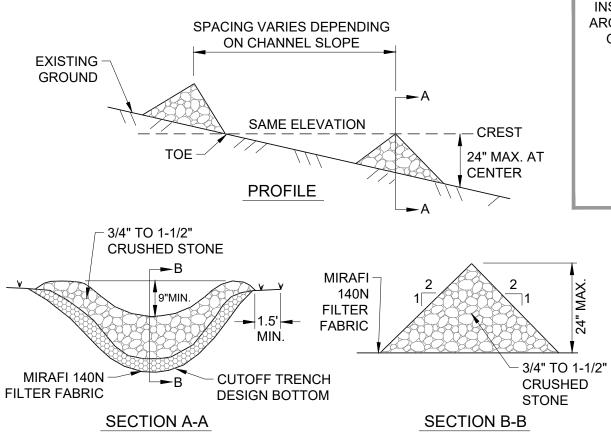
10% TO 20% 25 FT. OR LESS



5" MINUS CLEAN CRUSHED STONE 12" MIN. EXISTING GROUND - CHECK WITH PROJECT ENGINEER FOR SIZING, IF NECESSARY EXISTING GROUND 12" MIN. BASIC UP SLOPE DIVERSION SWALE. SWALE SHALL BE LINED WITH STONE IF LONGITUDINAL SLOPE EXCEEDS 3%. USE 5" MINUS CLEAN CRUSHED NOTES

UPSLOPE DIVERSION BERM WILL BE USED AS SHOWN ON PLAN AND DETAIL. DIVERSION SWALES ARE NOT PART OF THIS DESIGN, IF NECESSARY DURING CONSTRUCTION, CONTRACTOR SHALL CHECK WITH THE PROJECT ENGINEER

TYPICAL UPSLOPE DIVERSION DETAIL



STONE CHECK DAM

NOTES

SETTLE.

1. PROPER INSTALLATION OF

FENCE THE ABILITY TO

TEMPORARILY POND

J-HOOKS PROVIDES SILT

RUNOFF, ALLOWING TIME FOR SEDIMENTS TO

2. LONG RUNS OF SILT FENCE

BETWEEN J-HOOKS

SHOULD BE AVOIDED

REFER TO ADJACENT

TABLE FOR PROPER

SPACING OF J-HOOKS.

3. J-HOOKS SHOULD BE BUILT

ALONG CONTOUR IN A

"SMILE" SHAPE WITH A

4. ALONG A NARROW RIGHT

OF WAY, NARROWER

J-HOOKS CAN BE USED

WITH A HIGHER SPACING

MINIMUM WIDTH OF 20 FEET

AND MINIMUM DEPTH OF 10

TO PROVIDE GRADATION PRIOR TO PURCHASING. MIN 4" DEPTH OF VAOT 704.05A COARSE ROAD GRAVEL UNDER PAD, KEY INTO EXISTING GRADE SECTION A-A DISPERSION PAD, INSTALL PERPENDICULAR TO FLOW FROM SWALE. DISPERSION PAD SHALL BE 10' MIN LONG UNLESS OTHERWISE SPECIFIED. SWALE OR AREA OF CONCENTRATED FLOW, 1. CONTRACTOR SHALL REPLACE PROVIDE STONE AS NECESSARY TO **CHECK DAMS** PREVENT SEDIMENT BUILD UP. IN SWALE, AS NECESSARY. 2. SEDIMENT SHOULD BE REMOVED FROM BEHIND

ACCUMULATED HEIGHT HAS REACHED ½ THE HEIGHT OF THE DISPERSION PAD. SEDIMENT SHOULD ALSO BE REMOVED TEMPORARY POOLING AFTER FINAL STABILIZATION OF AREA AND SEDIMENT

6" MINUS STONE, CONTRACTOR

DISPERSION PAD DETAIL

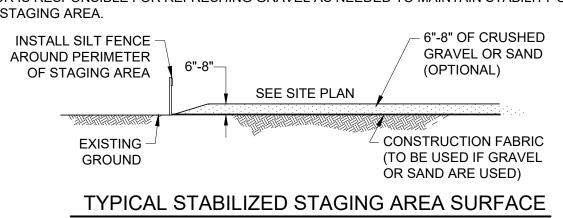
DISPERSION PAD ONCE THE

SILT FENCING TO BE INSTALLED BEFORE CONSTRUCTION OF STAGING AREA IS INSTALLED.

TRAP DURING

CONSTRUCTION

- INSTALL AND MAINTAIN SURFACE OF STAGING AREA WITH CONSTRUCTION FABRIC OVER EXISTING GROUND. COVER WITH 6"-8" OF CRUSHED GRAVEL OR SAND, SEE DETAIL. MAINTAIN DEPTH OF GRAVEL OR SAND THROUGHOUT PROJECT CONSTRUCTION.
- INSTALL AND MAINTAIN STABILIZED CONSTRUCTION ENTRANCE, SEE DETAIL. INSTALL WOODEN GATE AT ENTRANCE OF OF STAGING AREA.
- ALL ABUTTERS TO STAGING AREA WILL BE NOTIFIED OF THE PROJECT. DUE TO LIKELY CONSTRUCTION NOISE, ACTIVITIES AT STAGING AREA AND CONSTRUCTION SITE SHALL ABIDE BY LOCAL NOISE ORDINANCES.
- STAGING AREA IS LIKELY TO BE USED FOR PARKING DURING CONSTRUCTION, STAGING OF CONSTRUCTION MATERIALS, BASE OF PROJECT OPERATIONS AND MISCELLANEOUS PROJECT ACTIVITIES.
- CLOSE TO PROJECT CONSTRUCTION COMPLETION, STAGING AREA WILL BE REMOVED. TOP LAYER OF GRAVEL OR SAND AND CONSTRUCTION FABRIC SHALL BE REMOVED AND PROPERLY DISPOSED OF. RESTORE THE PORTION OF EXISTING MEADOW COVERED BY STAGING AREA BY SEEDING, MULCHING, AERATING, ETC AS NECESSARY TO RESTORE FIELD TO ITS NATURAL PRECONSTRUCTION STATE.
- CONTRACTOR IS RESPONSIBLE FOR REFRESHING GRAVEL AS NEEDED TO MAINTAIN STABILITY OF STABILIZED STAGING AREA.



NOTES

- 1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES GRADES AND LOCATIONS SHOWN IN THE PLAN.
- 2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
- 3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
- 4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
- 5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

WESTPORT PLANNING

BOARD APPROVAL

DATE

GREGORY T. CIVIL ENGINEER No. 55649

REV. NO.	REVISIONS/COMMENTS	DATE
1.	Revise design for new wetlands and	09/17/2
	project updates	
2.	Updates for Peer Review Report	11/17/21
3.	Update Fire Department comments	01/20/2
4.	Address Board Member Mr. Daylor's	03/03/2
	comments and Public comments	
DRA	WING TITLE:	

DETAILS

C-3.02

GADUS

Horseneck Road

Westport, Massachusetts

IRONWOOD

BIODIVERSITY RESEARCH INSTITUTI

ISSUED FOR PERMIT REVIEW

NOT FOR CONSTRUCTION

Krebs and Lansing Consulting Engineers, Inc.

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APPLICANT:

164 Main Street, Suite 201

CIVIL ENGINEER:

ENVIRONMENTAL

Parcel ID:

Parcel Address:

BRI Environmental

Portland, ME 04103

276 Canco Road

164 Main Street, Suite 201

Colchester, Vermont 05446

OWNER & PROPERTY INFORMATION:

Owner Address: 124 Milton Street

Bruce and Patricia Mayall

Fall River, MA 02720

0 Horseneck Road

Westport, MA 02790

76-69S-0

Colchester, Vermont 05446

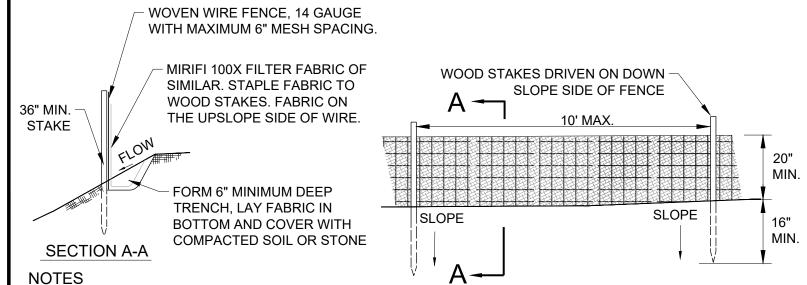
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DRA'	WING TITLE:	
	DETAILS	

ATE of Issue: 05/03/2021

rawn by: EJM/GTD Checked by: GTD Scale: N/A roject No.: 21220

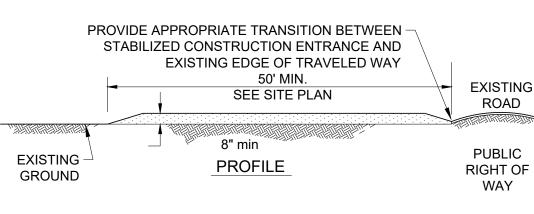
REINFORCED SILT FENCE. TWO ROWS OF NONREINFORCED SILT 100 FEET FENCE OR ROW OF WATTTI F INSIDE OF NONREINFORCED SILT ALL NONREINFORCED SILT FENCE OR WATTLE PER SPECIFICATIONS > 100 FEET ALL BELOW WOVEN WIRE FENCE, 14 GAUGE WITH MAXIMUM 6" MESH SPACING MIRIFI 100X FILTER FABRIC OF WOOD STAKES DRIVEN ON DOWN SIMILAR. STAPLE FABRIC TO SLOPE SIDE OF FENCE WOOD STAKES. FABRIC ON THE UPSLOPE SIDE OF WIRE.

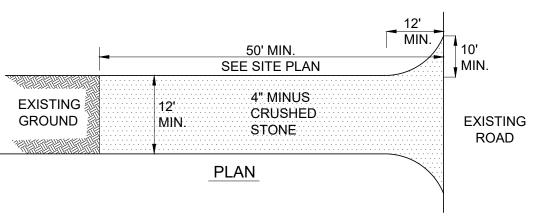
PERIMETER EROSION CONTROL SCHEDULE



- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES WIRE FENCE
- REINFORCEMENT REQUIRED WITHIN 100 FT UPSLOPE OF RECEIVING WATERS. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH ITIES SPACED 24" AT THE TOP AND
- MID SECTION WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
- FILTER CLOTH SHALL BE MIRAFI 100X OR APPROVED EQUIVALENT.
- PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE OR EQUIVALENT CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE, AND REMOVAL OF SILT FENCE
- IN ALL LOCATIONS SHOWN ON THE PLANS. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF
- OF FABRIC HEIGHT. REMOVE SILT FENCE AFTER SUCCESSFUL ESTABLISHMENT OF VEGETATION. OTHER MEASURES MAY BE USED TO REINFORCE SILT FENCE IN PLACE OF WIRE MESH, CONTRACTOR WILL
- APPROVE ALL MEASURES WITH ENGINEER PRIOR TO USE IF SILT FENCE IS INSTALLED WHEN GROUND IS FROZEN, A GRAVEL, SAND OR WATTLE BALLAST MUST BE USED.
- CONTRACTOR MAY USE IVI WIRE BACK SILT FENCE (IVI PRODUCT 940-3610-B48-W6H) OR EQUIVALENT. 10. SILT FENCE SHALL BE INSTALLED ALONG CONTOURS.
- 11. SILT FENCE SHALL NOT BE LOCATED IN AREAS OF CONCENTRATED FLOW.
- TYPICAL TEMPORARY 12. DRAINAGE AREA SHALL BE $\leq \frac{1}{4}$ ACRE PER 100 LINEAR FEET OF SILT FENCE. REINFORCED SILT FENCE

- NOTES
- CONTRACTOR SHALL STABILIZE CONSTRUCTION ENTRANCE AS REQUIRED TO PREVENT TRACKING OF SEDIMENT OFF-SITE.
- CONTRACTOR TO USE MIRAFI 500X UNDER STONE FOR TEMPORARY CONSTRUCTION ROADS.
- CRUSHED STONE SHALL BE ADDED OR REPLACED WHEN 80% OF THE
- VOIDS ARE FILLED WITH SEDIMENT.
- 4. STONE SIZE SHALL BE 1-4".
- ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES IS ALLOWED.





STABILIZED CONSTRUCTION ENTRANCE

N.T.S.

- LIMITS OF / LIMITS OF **FENCE FENCE** CLEARING CLEARING NOTE: J-HOOKS SHALL BE USED WHENEVER THE SILT FENCE LINE IS INSTALLED AT AN ANGLE OF 30 DEGREES OR GREATER FROM PARALLEL TO THE CONTOURS



SLOPE

STEEPNESS

2:1 SLOPE (50%

3:1 SLOPE (33%)

4:1 SLOPE (25%)

5:1 SLOPE OR

FLATTER (50%)

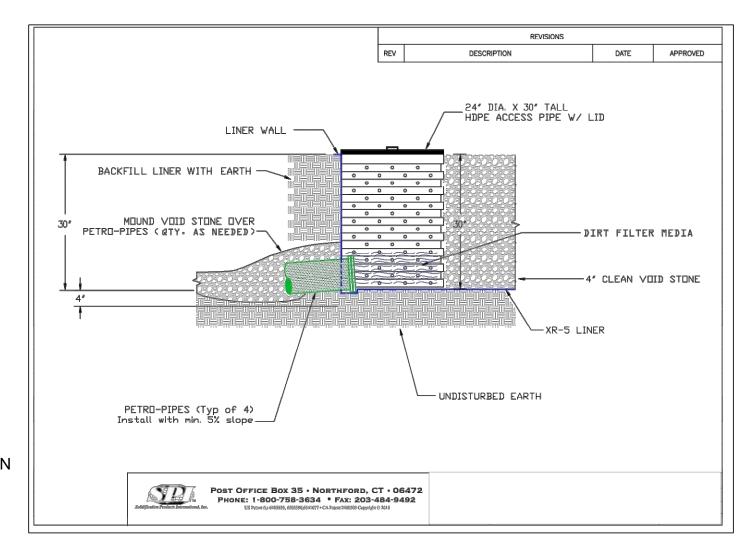
─ AVOID LARGE MAXIMUM SPACING BETWEEN SILT FENCE J-HOOKS (FT.) 100

GAPS BETWEEN BOTTOM OF ABOVE GRADIENT J-HOOK AND THE NEXT SILT FENCE LINE. (6" MAXIMUM)

TYPICAL SILT FENCE "J-HOOK" CONSTRUCTION

N.T.S.

FREQUENCY.



- POLYVINYL

IMPERVIOUS

BASE OF CONCRETE

TRANSFORMER VAULT.

NOTE: EXACT EQUIPMENT HAS NOT BEEN DETERMINED AT THIS TIME. SOLAR TECHNOLOGY IS AN EVOLVING FIELD AND THE CONSTRUCTION DATE FOR THIS PROJECT COULD BE YEARS OUT. PROJECT ENGINEERS WILL EVALUATE EQUIPMENT PURCHASED FOR CONSTRUCTION AND MAKE SURE IT MEETS THE SPECIFICATIONS BELOW.

VOLUME CALCULATIONS

125% OF THE 500 GALLONS OF TRANSFORMER OIL = 625 GAL. = 84 C.F.

REQUIRED MINIMUM FREEBOARD (24-HOUR DURATION, 25 YEAR STORM) = 6.02" (0.50') CONTAINMENT AREA & PAD = 17' X 17' = 289 S.F. VOLUME OF FREEBOARD REQUIRED = 289 S.F. X 0.50 FT. = 145C.F.

TOTAL CAPACITY REQUIRED = 84 C.F. + 145 C.F. = 229 C.F.

CAPACITY PROVIDED IN SECONDARY OIL CONTAINMENT SYSTEM:

AREA OF CONTAINMENT = (17'X17') - (13'X7') = 198 S.F. VOLUME OF CONTAINMENT = 198 S.F. X 3.0' OF DEPTH = 594 C.F. WHEN FILLED WITH STONE WITH 45% VOID RATIO = 594 C.F. * 0.45 = 267 C.F. TOTAL CAPACITY PROVIDED = 267 C.F. > 229 C.F. REQUIRED

- . THE O&M FIRM WILL REVIEW THE INSTALLATION FOR SAFETY AND CODE COMPLIANCE (BY THE APPROPRIATE QUALIFIED LICENSED MECHANICAL AND ELECTRICAL PROFESSIONALS), ACCURATE AND UP TO DATE REPORTING INFORMATION AND UPDATES REQUIRED. PLEASE NOTE THAT KREBS AND LANSING CONSULTING ENGINEERS INC. WORK PERTAINS TO THE STORMWATER CONTROLS ONLY. THE SAFETY AND CODE COMPLIANCE PORTION OF THE DESIGN AND REVIEW SHALL BE COMPLETED BY THE APPROPRIATE LICENSED MECHANICAL AND ELECTRICAL PROFESSIONALS (ENGINEERS) HIRED BY THE O&M FIRM PRIOR TO CONSTRUCTION OF THE PROJECT. ANY APPROPRIATE CODE OR SAFETY MODIFICATIONS DICTATED BY THAT REVIEW SHALL BE INCORPORATED INTO O&M PROTOCOLS FOR THE SITE PRIOR TO CONSTRUCTION COMMENCING.
- THIS DESIGN ASSUMES THAT ALL PENETRATIONS THROUGH THE CONCRETE BASE OF THE TRANSFORMER VAULT COVER WILL BE SEALED. IF PENETRATIONS ARE NOT SEALED CONTRACTOR MUST MAKE BOTTOM OF THE TRANSFORMER VAULT SUMP WATER TIGHT OR INSTALL AN OIL REACTIVE PLUG IN ALL VAULT DRAINS, "PETRO PLUG" OR APPROVED EQUAL.
- 3. THIS DESIGN IS FOR A 2,000 KVA PAD MOUNTED TRANSFORMER BY COOPER POWER SYSTEMS. FILLED WITH 500 GALLONS OF FLUID.
- 4. SECONDARY OIL CONTAINMENT WILL BE REVIEWED PRIOR TO INSTALLATION AND DESIGNED SPECIFICALLY FOR THE EQUIPMENT BEING INSTALLED. EQUIPMENT MANUFACTURER MAY PROVIDE THEIR OWN SECONDARY OIL CONTAINMENT. CONTAINMENT DESIGN WILL NEED TO BE REVIEWED BY THE ENGINEER AND FIT THE STATE SPECIFIED VOLUME.

TYPICAL SECONDARY OIL CONTAINMENT DESIGN FOR 1,500 kVA TO 2,000 kVA TRANSFORMERS

24" MIN. EROSION

EXISTING -

GRADE

EROSION CONTROL MIX BERM SHALL

BE MANUFACTURED ON OR OFF THE

WITH THE MAINE DEPT. OF EROSION

CONTROL AND SEDIMENT CONTROL

ORGANIC MATERIAL, SEPARATED AT

INCLUDE: SHREDDED BARK, STUMP

BARK CHIPS AND/OR ACCEPTABLE

REPROCESSED WOOD PRODUCTS

MATERIALS USED TO MANUFACTURE

THE EROSION CONTROL MIX SHALL BE

NATIVE MASSACHUSETTS MATERIALS.

WILL NOT BE ACCEPTABLE. ALL

CONSTRUCTION DEBRIS OR

GRINDINGS, COMPOSTED WOOD AND

MANUFACTURED PRODUCTS. GROUND

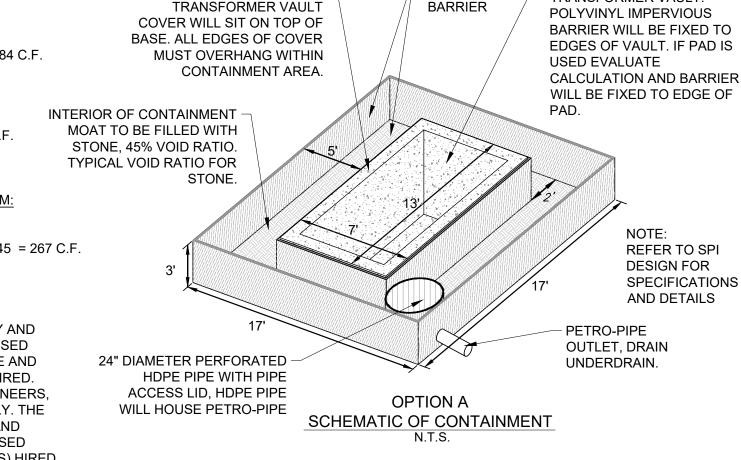
THE POINT OF GENERATION, AND MAY

PROJECT SITE SUCH THAT ITS

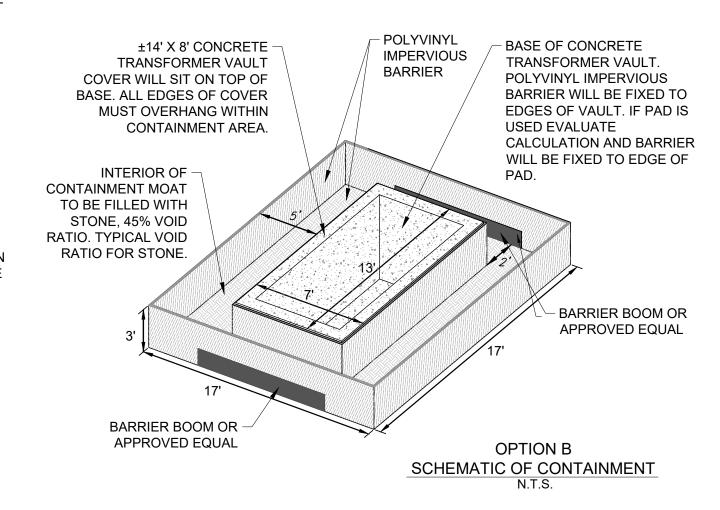
COMPOSITION IS IN ACCORDANCE

BMP, B-1 SEDIMENT BARRIERS. IT MUST CONSIST PRIMARILY OF

COMPOSITION:



±14' X 8' CONCRETE



- CONTROL MIX 1. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL CONTOUR.
 - 2. EXISTING GROUND SHALL BE PREPARED AS NEEDED SUCH THAT THE BARRIER LIES NEARLY FLAT ALONG THE GROUND TO AVOID THE CREATION OF VOIDS AND BRIDGES IN ORDER TO MINIMIZE THE POTENTIAL OF WASH OUTS UNDER THE BARRIER.
 - 3. ON SLOPES < 5% OR AT THE BOTTOM OF STEEPER SLOPES (<2:1) UP TO 20' LONG, THE BARRIER MUST BE A MINIMUM OF 12" HIGH, AS MEASURED ON THE UPHILL SIDE OF THE BARRIER, AND A MINIMUM OF 2 FT. WIDE. ON LONGER OR STEEPER SLOPES, THE BARRIER SHALL BE WIDER TO ACCOMMODATE ADDITIONAL FLOW.
 - 4. EROSION CONTROL MIX MAY BE INSTALLED WHERE SILT FENCE IS ILLUSTRATED AND SCHEDULED ON THE DESIGN PLANS EXCEPT IN, BUT NOT LIMITED TO, THE FOLLOWING AREAS: WETLAND AREAS, AT POINTS OF CONCENTRATED FLOW, BELOW STORMWATER END SECTIONS AT OUTFALLS, AROUND CATCH BASINS AND CLOSED STORM SYSTEMS AND AT THE BOTTOM OF STEEP SLOPES (UP TO 2:1 WITH ENGINEER APPROVAL) THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM. IN WETLAND BUFFER AREAS EROSION CONTROL MIX MAY BE USED ONLY IN THE SPECIFIC AREAS THAT HAVE RECEIVED REGULATORY APPROVAL FOR DISTURBANCE FROM EITHER THE STATE OF MASSACHUSETTS OR THE U.S. ARMY CORPS OF ENGINEERS. EROSION CONTROL MIX MAY NOT BE USED IN WETLAND AREAS.

NOTES

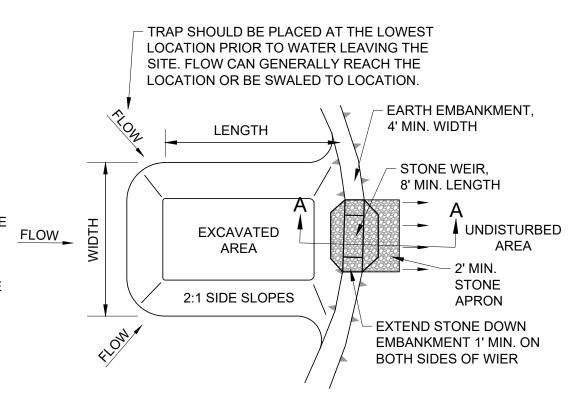
- 1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT (VEGETATION DUFF LAYER). THE POOL AREA SHALL BE CLEARED.
- 2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
- 3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER. THE USE OF GREATER SLOPES MAYBE PERMITTED WITH OSPC OR EPSC SPECIALIST APPROVAL.
- 4. THE STONE USED IN THE OUTLET SHALL BE VAOT 706.04 TYPE 1 STONE OR APPROVED ON SITE SHOT ROCK, PLACED ON MIRAFI 140N OR APPROVED EQUAL DRAINAGE FABRIC.
- 5. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ¹/₂ THE DESIGN DEPTH OF THE TRAP. IT SHALL BE PLACED ON SITE AND STABILIZED.
- 6. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND AS REQUIRED BY THE PERMIT.
- 7. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND SEDIMENT ARE CONTROLLED.
- 8. IF THE SEDIMENT TRAP IS NOT IN THE LOCATION OF A PERMANENT STORMWATER POND, THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED. 9. THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS 5 ACRES.
- 10. GENERAL SIZING REQUIREMENTS FOR ANY SEDIMENT TRAPS NOT IN THE LOCATION OF A PERMANENT STORMWATER POND, SHALL BE 3,600 CUBIC FEET PER ACRE OF DRAINAGE AREA. VOLUME CALCULATION FOR NATURAL SEDIMENT TRAPS MAY BE APPROXIMATED USING THE SURFACE AREA AT OUTLET ELEVATION (A), TRAPS MAXIMUM DEPTH (D) AND THE
 - TOTAL VOLUME = 0.4 * A (IN SQUARE FEET) * D (FEET)

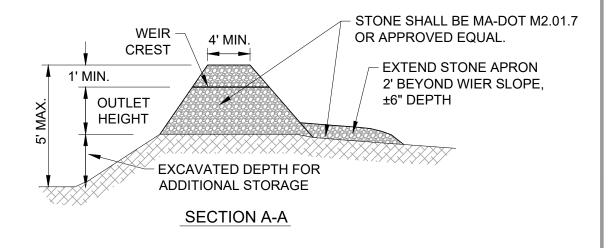
FOLLOWING EQUATION:

FOR CONSTRUCTED/EXCAVATED TEMPORARY SEDIMENT TRAPS THE SIZE SHALL BE ADJUSTED PROPORTIONALLY FOR LARGER DRAINAGE AREAS BASED ON THE BELOW CHART.

APPROX. DRAINAGE AREA	APPROX. STORAGE VOLUME	RECOMMENDED BOTTOM DIMENSIONS	RECOMMENDED DIMENSIONS AT OUTLET	DEPTH AT OUTLET	SIDE SLOPES
0.25 ACRES (±10,900 S.F.)	±900 C.F.	10 FT. WIDE X 13 FT. LONG	22 FT. WIDE X 25 FT. LONG	3 FT.	2:1

- 11. FOR THOSE TEMPORARY SEDIMENT TRAPS TO BE PERMANENT DRY OR WET PONDS, SEDIMENT SHALL BE REMOVED AND THE ENTIRE AREA SEEDED AND MULCHED OR COVERED WITH EROSION CONTROL MATTING PRIOR TO PUTTING THE STORMWATER POND INTO USE.
- 12. LOCATIONS FOR TEMPORARY SEDIMENT TRAPS TO BE APPROVED BY THE OSPC OR THE EPSC SPECIALIST.





TYPICAL TEMPORARY SEDIMENT TRAP

GADUS

Horseneck Road Westport, Massachusetts



APPLICANT





ISSUED FOR PERMIT REVIEW NOT FOR CONSTRUCTION

CIVIL ENGINEER:

Krebs and Lansing Consulting Engineers, Inc. 164 Main Street, Suite 201 Colchester, Vermont 05446

ENVIRONMENTAL

BRI Environmental 276 Canco Road Portland, ME 04103

OWNER & PROPERTY INFORMATION:

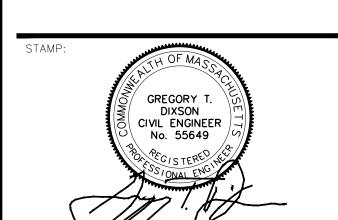
Bruce and Patricia Mayall

Owner Address: 124 Milton Street Fall River, MA 02720

Parcel ID: 76-69S-0

Parcel Address: 0 Horseneck Road

Westport, MA 02790



REV. NO.	REVISIONS/COMMENTS	DATE
1.	Updates for Peer Review Report	11/17/21
2.	Address Board Member Mr. Daylor's	03/03/22
	comments and Public comments	
DRAV	WING TITLE:	

DETAILS

WESTPORT PLANNING **BOARD APPROVAL**

DATE

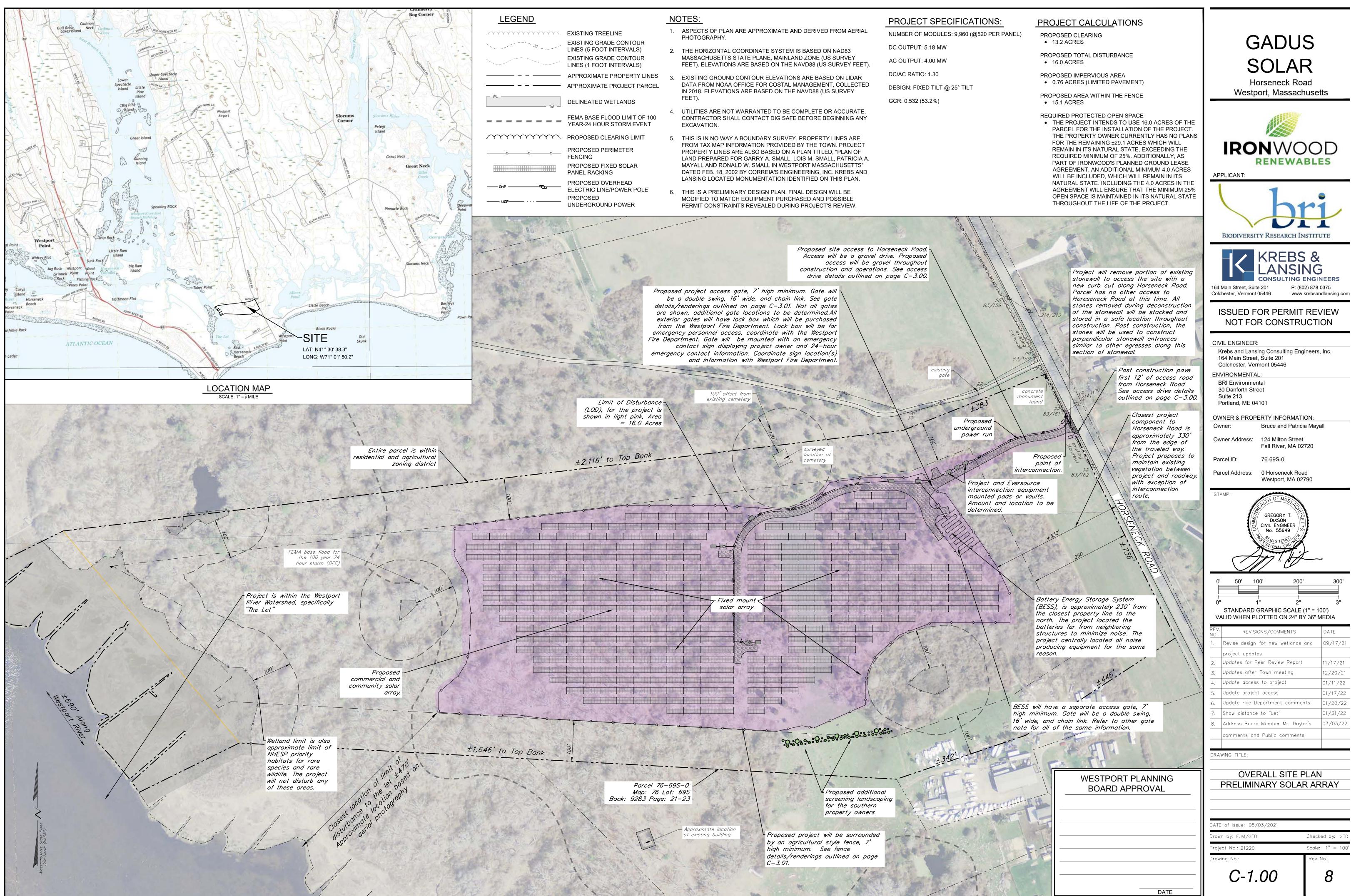
DATE of Issue: 09/17/2021 Drawn by: EJM/GTD Project No.: 21220

C-3.03

Checked by: GTD

Scale: N/A

Rev No.:



Westport, Massachusetts



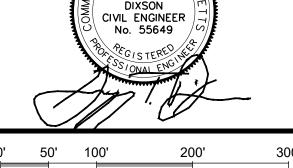




ISSUED FOR PERMIT REVIEW

OWNER & PROPERTY INFORMATION:

Westport, MA 02790

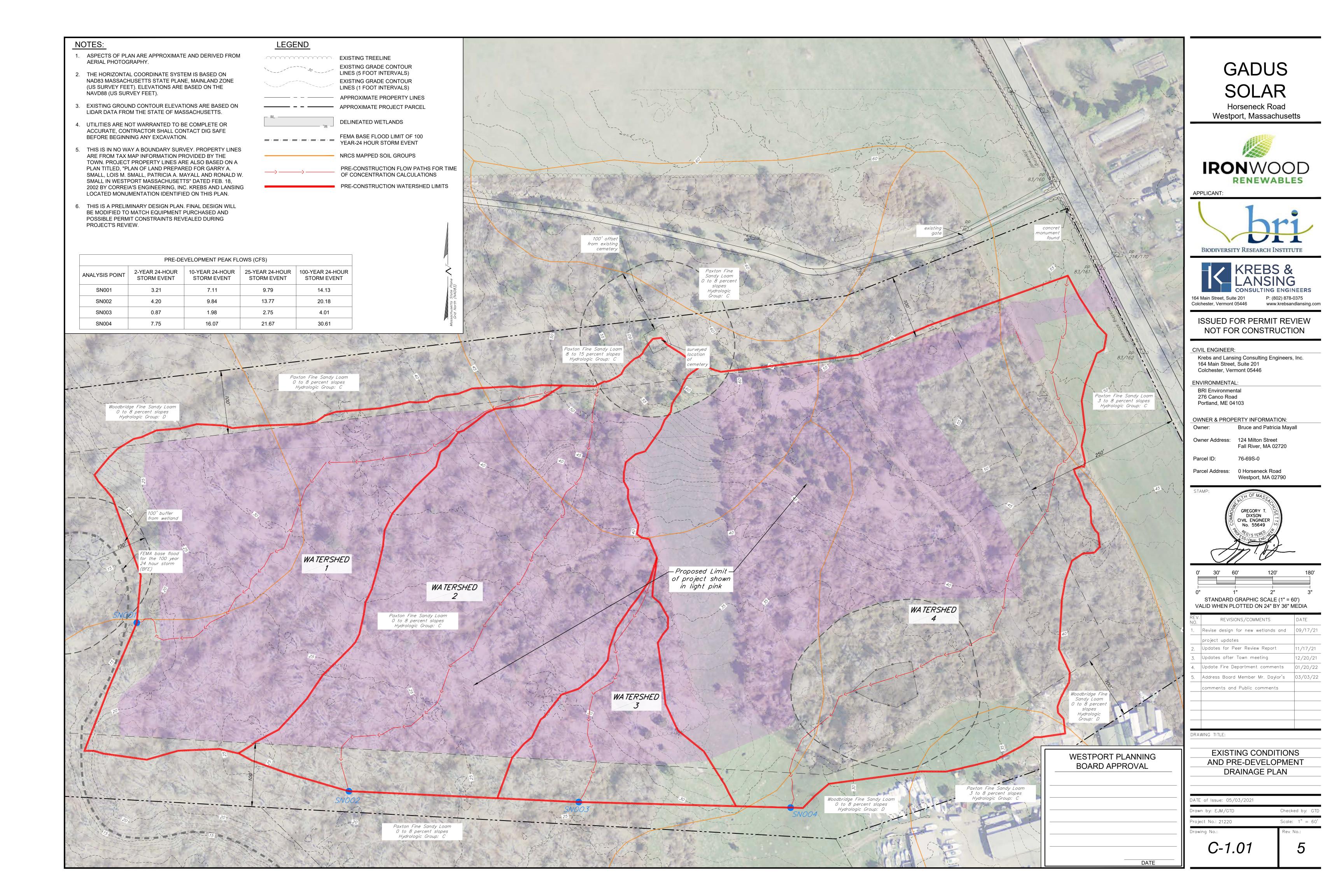


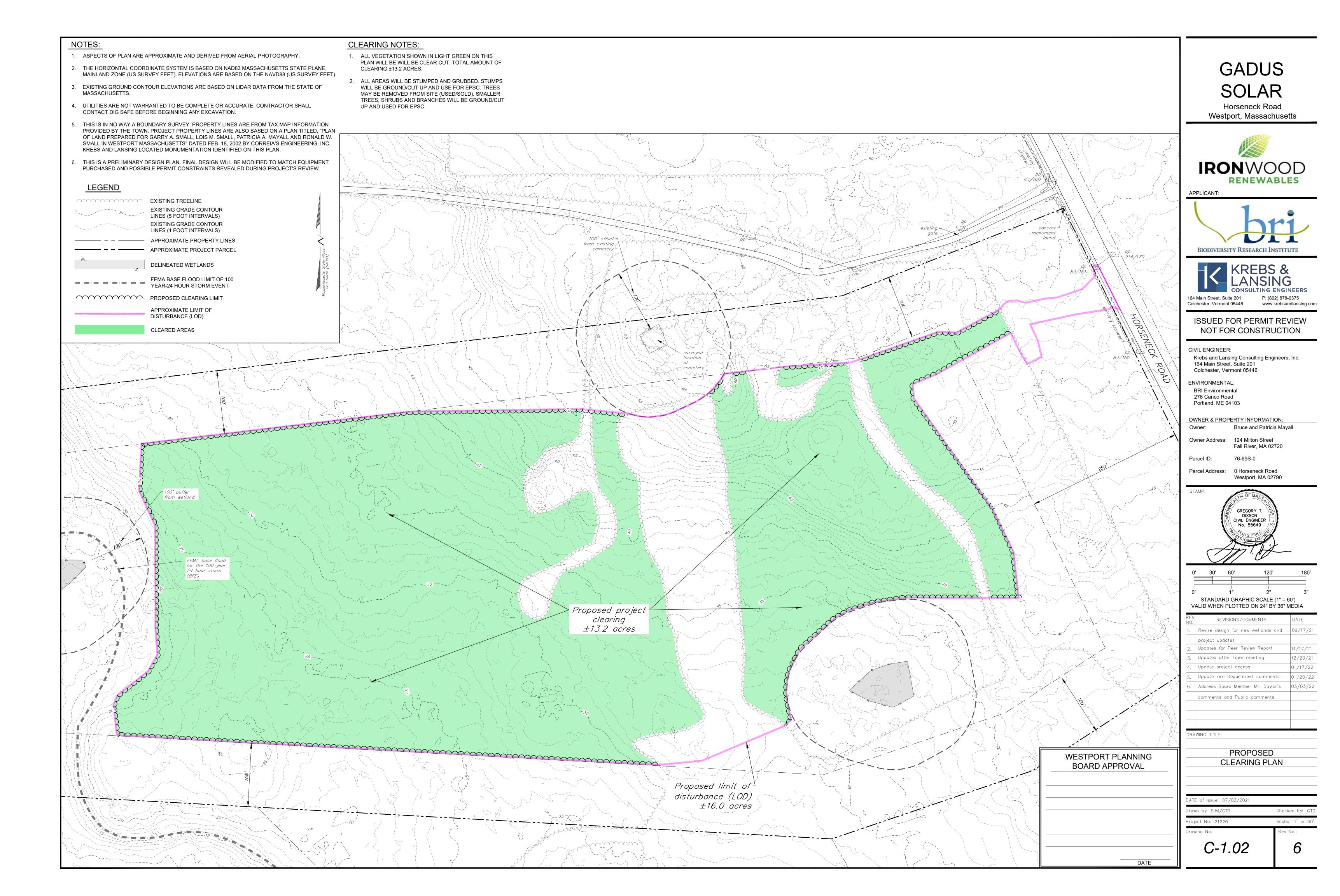
STANDARD GRAPHIC SCALE (1" = 100')

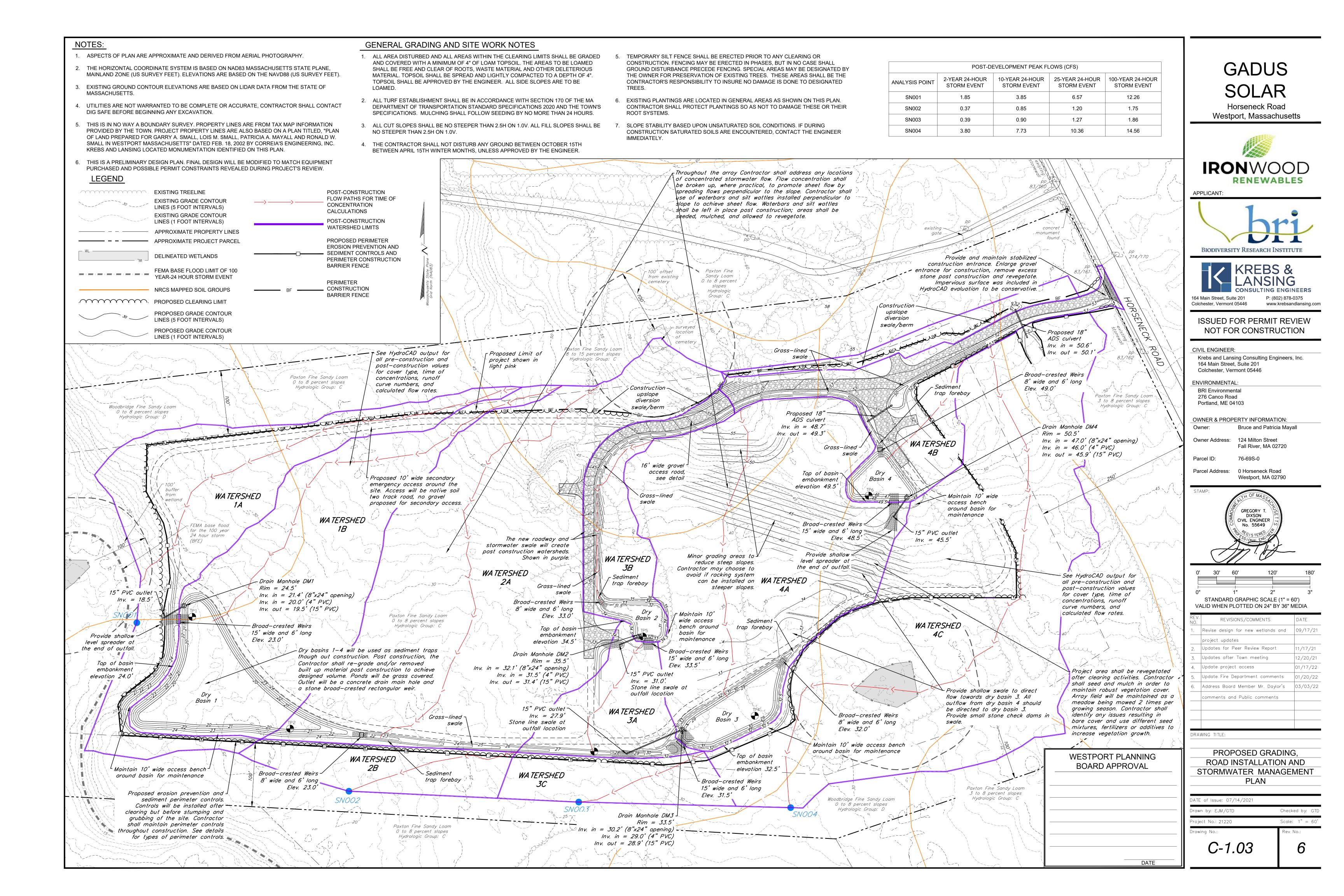
REV. NO.	REVISIONS/COMMENTS	DATE
1.	Revise design for new wetlands and	09/17/21
	project updates	
2.	Updates for Peer Review Report	11/17/21
3.	Updates after Town meeting	12/20/21
4.	Update access to project	01/11/22
5.	Update project access	01/17/22
6.	Update Fire Department comments	01/20/22
7.	Show distance to "Let"	01/31/22
8.	Address Board Member Mr. Daylor's	03/03/22
	comments and Public comments	

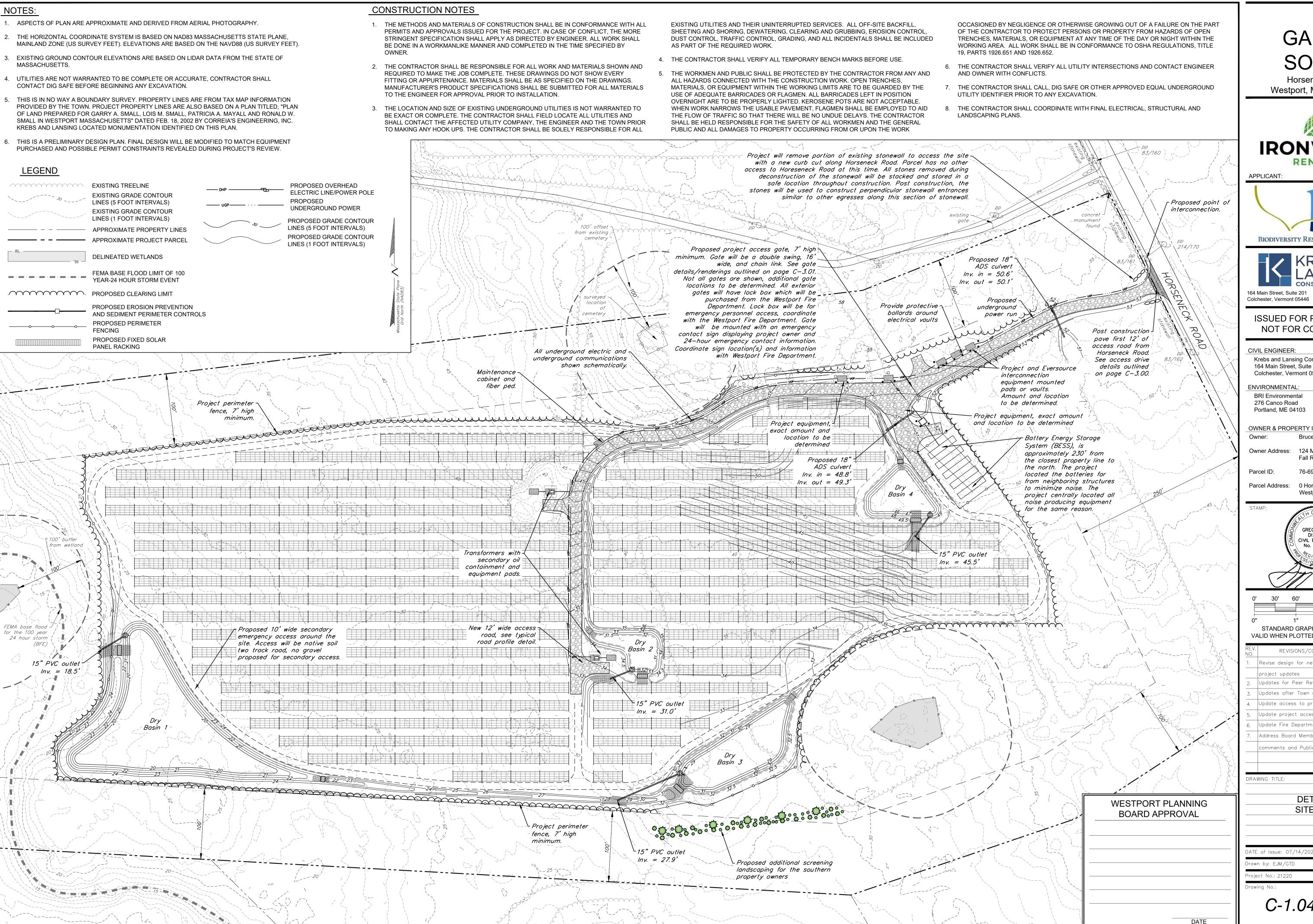
PRELIMINARY SOLAR ARRAY

Checked by: GTD Scale: 1" = 100









Horseneck Road Westport, Massachusetts



APPLICANT:





ISSUED FOR PERMIT REVIEW NOT FOR CONSTRUCTION

CIVIL ENGINEER:

Krebs and Lansing Consulting Engineers, Inc. 164 Main Street, Suite 201 Colchester, Vermont 05446

ENVIRONMENTAL

BRI Environmental 276 Canco Road Portland, ME 04103

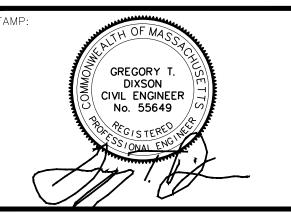
OWNER & PROPERTY INFORMATION: Bruce and Patricia Mayall

Owner Address: 124 Milton Street

76-69S-0

Parcel Address: 0 Horseneck Road Westport, MA 02790

Fall River, MA 02720



STANDARD GRAPHIC SCALE (1" = 60') VALID WHEN PLOTTED ON 24" BY 36" MEDIA

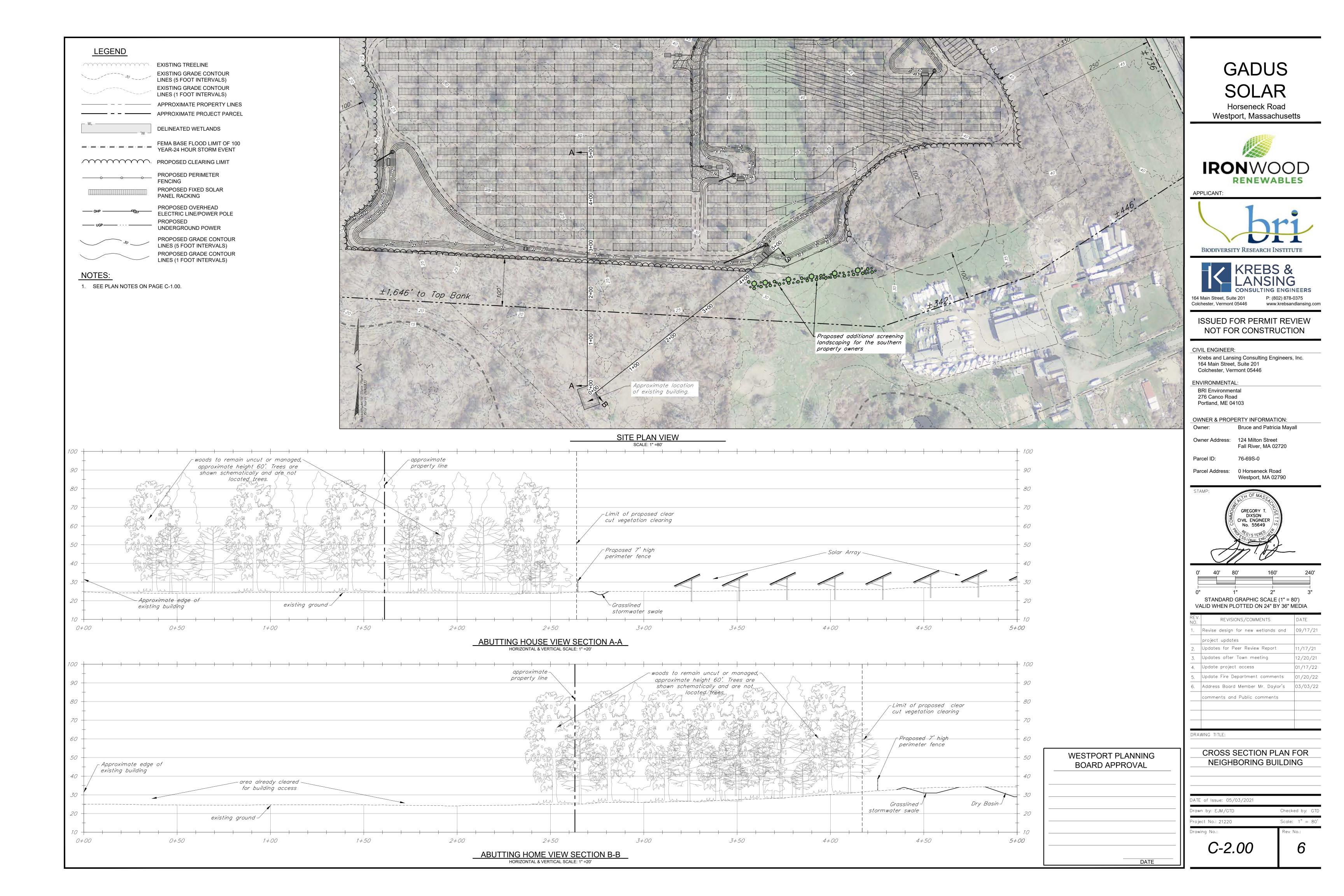
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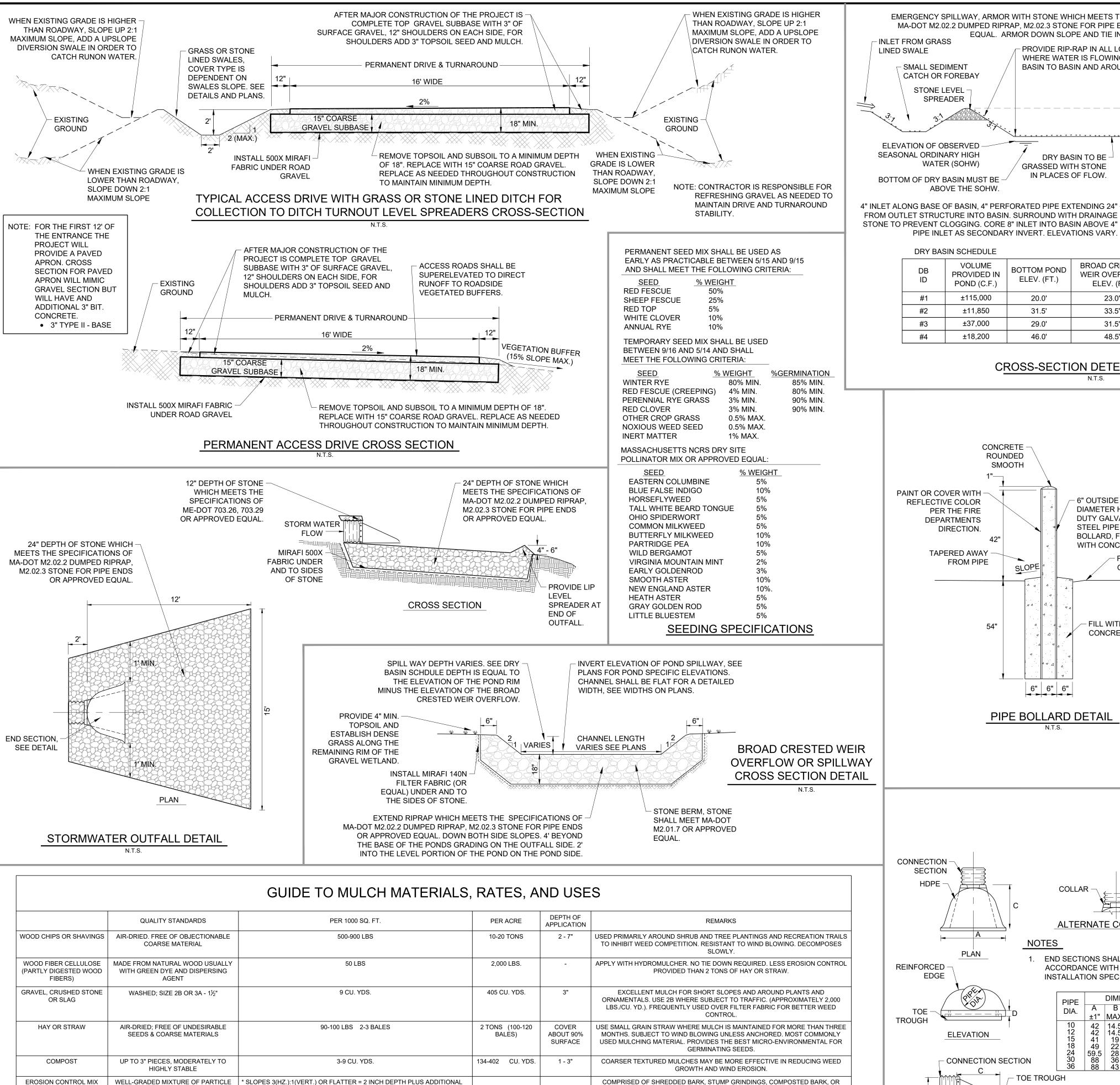
DRAWING TITLE:

DETAILED SITE PLAN

DATE of Issue: 07/14/2021 Drawn by: EJM/GTD Checked by: GT[Project No.: 21220 Scale: 1" = 60'

C-1.04





SIZES. ORGANIC CONTENT BETWEEN | 1/2 INCH DEPTH PER 20 FT. OF SLOPE UP TO 100 FT.

SHALL PASS 6" SCREEN (100%)

80-100%, DRY WEIGHT. PARTICLE SIZE ** SLOPES BETWEEN 3(HZ.):1(VERT.) AND 2(HZ.):1(VERT.) = 4 INCH DEPTH

BY OSPC OR EPSC SPECIALIST

PLUS ADDITIONAL 1/2 INCH PER 20 FT. OF SLOPE UP TO 100 FT.

* SLOPES STEEPER THAN 2(HZ.):1(VERT.) USE OF EROSION CONTROL

MIX AND MULCH DEPTH TO BE REVIEWED AND APPROVED PRIOR TO USE

EMERGENCY SPILLWAY, ARMOR WITH STONE WHICH MEETS THE SPECIFICATIONS MA-DOT M2.02.2 DUMPED RIPRAP, M2.02.3 STONE FOR PIPE ENDS OR APPROVED SEE EQUAL. ARMOR DOWN SLOPE AND TIE INTO BASIN OUTFALL **STORMWATER** - INLET FROM GRASS **OUTFALL DETAIL** PROVIDE RIP-RAP IN ALL LOCATIONS WHERE WATER IS FLOWING FROM - SMALL SEDIMENT BASIN TO BASIN AND AROUND OUTLETS CATCH OR FOREBAY **EMBANKMENT** STONE LEVEL -SPREADER **ELEVATION OF OBSERVED -**SEASONAL ORDINARY HIGH DRY BASIN TO BE WATER (SOHW) **GRASSED WITH STONE** - 15" ADS OUTLET MINIMUM SLOPE IN PLACES OF FLOW. TO PIPE IS 0.01. BOOTED, GLUED BOTTOM OF DRY BASIN MUST BE OR MECHANICALLY CONNECT ABOVE THE SOHW. OUTLET PIPE TO OUTLET STRUCTURE. PROVIDE 4" INLET ALONG BASE OF BASIN, 4" PERFORATED PIPE EXTENDING 24" ANTI-SEEP COLLARS ALONG PIPE.

DRY BASIN SCHEDULE

CONCRETE

1"—

54"

FROM PIPE

ELEVATION

CROSS SECTION

ACCEPTABLE MANUFACTURED PRODUCTS. MAY CONTAIN ROCK < 4" IN DIAMETER.

ORGANICS SHALL BE FIBROUS AND ELONGATED. NO LARGE PORTIONS OF SILTS,

CLAYS OR FINE SANDS.

- CONNECTION SECTION

ROUNDED

SMOOTH

DB ID	VOLUME PROVIDED IN POND (C.F.)	DIN BOTTOM POND WEIR OVER		TOP OF POND ELEV. (FT.)
#1	±115,000	20.0'	23.0'	24.0'
#2	±11,850	31.5'	33.5'	34.5'
#3	±37,000	29.0'	31.5'	32.5'
#4	±18,200	46.0'	48.5'	49.5'

CROSS-SECTION DETENTION BASIN N.T.S.

6" OUTSIDE

STEEL PIPE

DIAMETER HEAVY

DUTY GALVANIZED

BOLLARD, FILLED

WITH CONCRETE

- FILL WITH

CONCRETE

PIPE BOLLARD DETAIL

- FINISH

GRADE

- USE STAINLESS

STEEL METAL

THREADED **FASTENER**

ALTERNATE CONNECTIONS

ACCORDANCE WITH THE MANUFACTURERS

DIMENSIONS

A B C D

±1" |MAX. | ±1" | ±1-½

HDPE END SECTION DETAIL

1. END SECTIONS SHALL BE INSTALLED IN

INSTALLATION SPECIFICATIONS.

DIA.

TOE TROUGH

CONSTRUCTION OVERSIGHT NOTES

CONSTRUCTION SEQUENCE:

CONSTRUCTION CAN BE STARTED NO LATER THAN SEPTEMBER 1ST. IF SIDE SLOPES AND BANKS CANNOT BE REVEGETATED AND STABILIZED BY THE END OF THE GROWING SEASON, BASIN CONSTRUCTION SHOULD BE DELAYED TO THE FOLLOWING GROWING SEASON. SEEDING MUST OCCUR BEFORE SEPTEMBER 15TH OR OTHER STABILIZATION MEASURES MUST BE IMPLEMENTED BEFORE WINTER. DO NOT DISCHARGE STORMWATER TO THE BASIN UNTIL THE BASIN IS FULLY STABILIZED OR PROVIDES A SEDIMENT BARRIER AT THE OUTLET.

CONSTRUCTION OVERSIGHT

- EMBANKMENT FILLS SHALL BE FREE OF FROZEN SOIL. ROCKS OVER 6", SOD, BRUSH STUMPS, TREE ROOTS, WOOD, OR OTHER PERISHABLE MATERIALS. EMBANKMENT FILLS SHALL BE COMPACTED USING METHODS THAT WOULD GUARANTEE A FILL DENSITY OF 90% OF THE MAXIMUM DENSITY AS DETERMINED BY STANDARD PROCTOR (ASTM-698). FILLS SHALL BE CONSTRUCTED IN 12" LIFTS.
- ALL AREAS OF CONCENTRATED FLOW IN OR OUT OF THE BASIN ARE TO BE ARMORED IN STONE RIP-RAP. STONE SHALL MEET THE SPECIFICATIONS OF MA-DOT M2.02.2 DUMPED RIPRAP, M2.02.3 STONE FOR PIPE ENDS OR APPROVED EQUAL
- ALL THE MATERIAL USED FOR THE CONSTRUCTION OF THE BASIN MUST BE CONFIRMED AS SUITABLE BY THE DESIGN ENGINEER. INSPECTION OF THE DRY POND BY A PROFESSIONAL ENGINEER
- SHALL CONSIST AT A MINIMUM OF WEEKLY SITE VISITS TO THE SITE TO INSPECT EACH DRY POND. THIS SHALL INCLUDE MATERIAL AND PLACEMENT, FROM INITIAL GROUND DISTURBANCE TO FINAL STABILIZATION OF THE POND SIDESLOPES. INSPECTIONS SHALL INCLUDE WITNESSING THE INSTALLATION OF BERMS AND EMERGENCY SPILLWAYS.

TESTING AND SUBMITTALS:

THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF LABORATORY TESTING SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR CONFIRMATION.

EACH COMPONENT OF THE BASIN. ALL RESULTS OF FIELD AND

BLANK

WESTPORT PLANNING

BOARD APPROVAL

DATE

GADUS Horseneck Road

Westport. Massachusetts



APPLICANT:





ISSUED FOR PERMIT REVIEW NOT FOR CONSTRUCTION

P: (802) 878-0375

www.krebsandlansing.com

CIVIL ENGINEER:

164 Main Street, Suite 201

Colchester, Vermont 05446

Krebs and Lansing Consulting Engineers, Inc. 164 Main Street, Suite 201 Colchester, Vermont 05446

ENVIRONMENTAL

BRI Environmental 276 Canco Road Portland, ME 04103

OWNER & PROPERTY INFORMATION:

Owner: Bruce and Patricia Mayall

Owner Address: 124 Milton Street

Parcel ID: 76-69S-0

Parcel Address: 0 Horseneck Road Westport, MA 02790

Fall River, MA 02720

GREGORY 1

CIVIL ENGINEER No. 55649

		-
REV. 10.	REVISIONS/COMMENTS	DATE
1.	Revise design for new wetlands and	09/17/21
	project updates	
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3.	Updates after Town meeting	12/20/21
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DRAWING TITLE: DETAILS

DATE of Issue: 05/03/2021 Drawn by: EJM/GTD

Scale: N/A Project No.: 21220

C-3.00

Checked by: GTD

1. TYPICAL GRASS SWALE. SEE PLAN VIEW FOR LOCATIONS.

2. TYPICAL SIDE SLOPES TO BE 2:1.

NOTES

- 3. DURING CONSTRUCTION TEMPORARILY SEEDED AND HEAVILY MULCHED. EROSION CONTROL BLANKET MAY BE NECESSARY IN STEEPER SLOPES. INSTALL BLANKET IF EROSION PERSISTS AND/OR GRASS IS HAVING DIFFICULTY GERMINATING. POST CONSTRUCTION CONTRACTOR SHALL RE-GRADE ANY EROSION. REMOVE BUILD UP SEDIMENTS. PERMANENT SEED AND HEAVILY RE-MULCH.
- CROSS-SECTION SHALL BE EXCAVATED TO NEAT LINES AND GRADES. OVER-EXCAVATED AREAS SHALL BE BACKFILLED WITH MOIST SOIL COMPACTED TO DENSITY OF SURROUNDING MATERIAL
- 5. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF IN APPROVED UPLAND AREA (PER ON SITE PLAN COORDINATOR) SUCH THAT IT DOES NOT INTERFERE WITH FUNCTION.

GRASS SWALE CROSS SECTION

NATURAL ORGANIC FIBER

WIDTH: 6.67 feet (2.03 m)

• AREA: 80 sq. yd. (50 m²)

LENGTH: 108 feet (32.92 m)

WEIGHT: 46.4 lbs. ± 10% (21.05 kg)

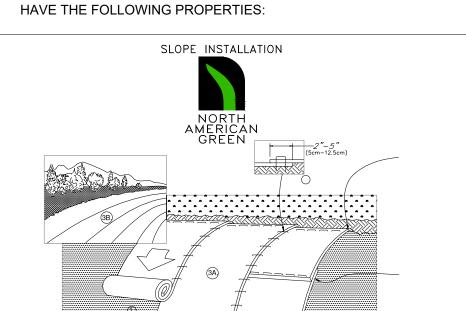
EROSION CONTROL BLANKET

NORTH AMERICAN GREEN S75BN

MATERIAL SPECIFICATIONS:

- EROSION CONTROL BLANKET SHALL BE A MACHINE-PRODUCED MAT OF 100% AGRICULTURAL STRAW.
- THE BLANKET SHALL BE OF CONSISTENT THICKNESS WITH THE STRAW EVENLY DISTRIBUTED OVER THE ENTIRE AREA OF THE MAT. THE BLANKET SHALL BE COVERED ON THE TOP SIDE WITH 100% BIODEGRADABLE WOVEN NATURAL ORGANIC FIBER NETTING HAVING AN APPROXIMATE 1/2" X 1" MESH AND BE SEWN TOGETHER WITH
- STRAW EROSION CONTROL BLANKET SHALL BE S75BN AS MANUFACTURED BY NORTH AMERICAN GREEN, INC (812-867-6632) OR EQUIVALENT **EROSION CONTROL BLANKET SHALL**

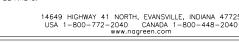
BIODEGRADABLE THREAD.

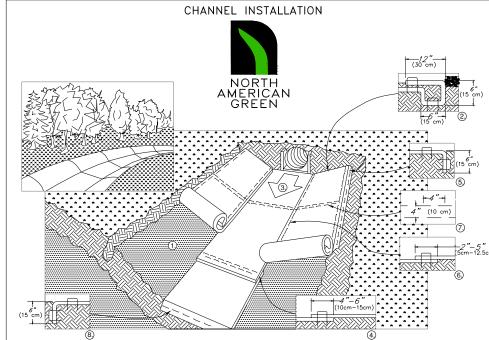


- NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN
- . PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIAT AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STS IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5cm-12.5cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.

NOTE: BLANKET SHALL BE USED ON SLOPES 3:1 OR STEEPER

*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.





2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH
WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BETYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE
BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL
AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION
OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES
SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.

. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDI AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM". STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN. 4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" (10cm-15cm) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER TO SECURE BLANKETS. . FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATEI 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. 6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"-5" (5cm-12.5cm) (DEPENDING ON BLANKET TYPE) AND STAPLED.
TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH"ON THE BLANKET BEING OVERLAPPED.

. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9m-12m) INTERVALS. US A DOUBLE ROW OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL. I. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

CRITICAL POINTS 14649 HIGHWAY 41 NORTH, EVANSVILLE, INDIANA 47725 USA 1-800-772-2040 CANADA 1-800-448-2040 www.nogreen.com

INVERT OUTFALL INVERT IN H8" x W24" TOP OF 4" PVC MH 15" PVC | 15" PVC OPENING MATERIAL CONTENT: #1 | 19.5' | 18.5' | 20.0' 21.4' 25.0' STRAW: 100% (0.50 lbs/sq.yd.)(0.27 31.0' 31.5' 32.1' 35.5' #2 | 31.4' | NETTING: ONE SIDE ONLY, LENO #3 | 28.9' | 27.9' | 29.0' 30.2' 33.5' WOVEN 100% BIODEGRADABLE

MANHOLE SCHEDULE

#4 | 45.9 | 45.5

THE BASIN.

(APPROX. WEIGHT 9.3 lbs./100 sq. ft.) *NOTE: MANHOLE OPENING WILL BE 8" HIGH BY 24" WIDE. THE OPENING'S THREAD: BIODEGRADABLE ELEVATION IS DESIGNED TO NOT BE USED FOR SMALLER STORM EVENTS, 2-YEAR 24-HOUR AND SMALLER STORMS. THE SMALLER PHYSICAL SPECIFICATIONS (ROLL): STORMS WILL OUTLET THROUGH THE 4" PIPE AT THE BOTTOM OF

46.0'

47.0'

50.5'

- THE PERMIT. CAST GRATE INTO CONCRETE. NEENAH SOLID -MANHOLE COVER MARKED AS STORM OR
 - 8. THE INSPECTORS CONTACT INFORMATION SHALL BE PROVIDED TO CONSTRUCTION ENGINEER TO BE INCLUDED IN THE PROJECTS SWPPP

1. ADDITIONAL BRACING MAY BE REQUIRED ON LONGER FENCE RUNS. CONTRACTOR TO ADD ADDITIONAL BRACING

- ALL FENCING MATERIALS, OTHER THAN THE SOLIDLOCK FIXED

WOVEN WIRE MESH SHALL

MATCH FIXED KNOT GAME

FENCE COLOR SELECTED.

DEPTH OF

HOLE 5'-6" MIN.

12"

BE VINYL COATED TO

KNOT GAME FENCE, SHALL BE BLACK VINYL COATED

USE CHAIN LINK

GATES AS

- LATCH

- TRUSS ROD

ADJUSTING

UNIT

FENCE FABRIC ON

SPECIFIED BELOW

WHEN CONTRACTOR OBSERVES CORNER POST DEFLECTION DURING FENCE TENSINOING/FASTENING.

2. FABRIC TO BE FASTENED TO POSTS WITH STAPLES APPROVED BY THE ENGINEER

DROP -

DOUBLE SWING GATE

(RENDERING)

N.T.S.

LATCH

· TENSION -

BAND

0.192 INCH

DIAMETER

2" MESH.

CORNER POST

EMBEDDED

IN CONCRETE 5'

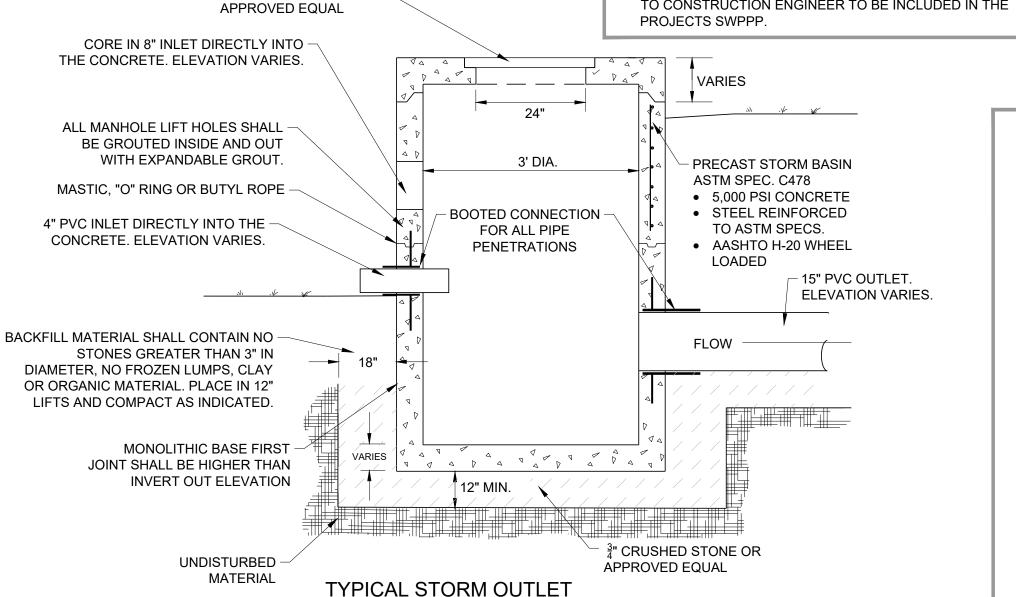
MESH WIRE IN

BOTTOM AND

KNUCKLED.

TOP SELVAGES

16' (MIN.) FACE TO FACE



STRUCTURE FOR DRY BASIN

NOTES

GATE POSTS, MIN. 6" -

TREATED WOOD OR

CEDAR POST

7' MIN.

DEPTH OF

HOLE 5'-6"

MIN.

12"

DIAMETER PRESSURE

PROPOSED 7' MIN. HIGH

PERIMETER FENCE, SEE

FENCE SPECIFICATION

FOR FENCE MATERIAL

SEE MANUFACTURES

SPECIFICATIONS FOR

ASTENING FENCING

TENSIONING AND

TO POSTS

PAINT ALL GALVANIZED

FIXED KNOT GAME

2. EMERGENCY CONTACT

IDENTIFIES THE

PHONE NUMBER.

PIPE AND FITTINGS TO MATCH SOLIDLOCK

FENCE. PAINT SHALL BE

SUITABLE FOR USE ON

GALVANIZED SURFACES

SIGN SHALL BE PLACED

ON THE GATE, WHICH

PROJECT OWNER AND

PROVIDES A 24-HOUR

EMERGENCY CONTACT

CONTRACTOR SHALL SUBMIT

SHOP DRAWINGS TO ENGINEER

FOR APPROVAL PRIOR TO

ORDERING AND

CONSTRUCTING FENCE.

. INSPECTIONS SHALL BE PERFORMED AT MINIMUM ONCE EVERY 7 CALENDAR DAYS BUT ALSO PRIOR TO AND 24 HOURS AFTER A WET WEATHER EVENT. A "WET WEATHER EVENT" IS DEFINED AS 0.25 INCHES OR GREATER IN A 24 HOUR PERIOD. 5. THE SCOPE OF CONSTRUCTION INSPECTIONS SHALL INCLUDE BUT ARE NOT LIMITED TO ALL THE EROSION AND SEDIMENT CONTROL MEASURES ON SITE. DOCUMENTATION OF THE

PROJECT SITE.

CONSTRUCTION EROSION AND

SEDIMENT CONTROL INSPECTOR

STORMWATER INSPECTOR" FOR THE ENTIRETY OF

. THE CONTRACTOR SHALL DESIGNATE A "QUALIFIED PROJECT

CONSTRUCTION. THE INSPECTOR OR THEIR DESIGNEE SHALL

2. THE INSPECTOR SHALL BE KNOWLEDGEABLE IN PRINCIPLES

STORMWATER QUALITY, TO ASSESS EFFECTIVENESS OF

CONSTRUCTION BEST MANAGEMENT PRACTICES (BMPs)

SELECTED TO CONTROL QUALITY OF STORMWATER

. THE INSPECTOR SHALL BE RESPONSIBLE FOR ON-SITE

DISCHARGES FROM CONSTRUCTION ACTIVITY.

BE ON-SITE ON A DAILY BASIS DURING ACTIVE CONSTRUCTION.

AND PRACTICES OF EROSION PREVENTION AND STORMWATER

CONTROL. IMPLEMENTATION AND POSSESS SKILLS TO ASSESS

CONDITIONS AT THE CONSTRUCTION SITE THAT COULD IMPACT

IMPLEMENTATION OF THIS EROSION AND SEDIMENT CONTROL

PLAN, INCLUDING INSPECTIONS, MONITORING AND REPORTING.

6. CONSTRUCTION INSPECTION AND CORRECTIVE ACTION DOCUMENTATION RECORDS SHALL BE MAINTAINED FOR A MINIMUM OF 3 YEARS. THIS DOCUMENTATION SHALL BE MAINTAINED BY THE CONTRACTOR UNLESS OTHERWISE AUTHORIZED BY THE OWNER. CORRECTIVE ACTIONS SHOULD BE STARTED SAME DAY COMPLETED WITHIN 7 DAYS OR BEFORE THE NEXT STORM EVENT. WHICHEVER IS FIRST.

OVERALL DISTURBANCE FOR THE PROJECT SITE. REVIEW OF

ALL STOCKPILE AREAS AND VEHICLE EGRESSES FROM THE

- THE INSPECTOR SHALL HAVE AUTHORITY TO STOP AND/OR MODIFY CONSTRUCTION ACTIVITIES AS NECESSARY TO COMPLY WITH THESE PLANS AND TERMS AND CONDITIONS OF
- STORM EVENT. 7. CONTRACTOR IS RESPONSIBLE TO REMOVE ALL EROSION AND SEDIMENT CONTROL BMPs WITHIN 30

CONTRACTOR SHALL FENCE MATERIAL: SOLIDLOCK FIXED KNOT GAME FENCE SPECIFICATION: SUBMIT SHOP • FENCE FABRIC SHALL BE BEKAERT ZA-6" FIXED KNOT GAME FENCE DRAWINGS TO 96" HIGH

ENGINEER FOR 12.5 GAUGE WIRE

INSTALL ALL FENCE COMPONENTS IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS, SEE "FIXED KNOT BRACE

CONSTRUCTION LIMITS FOR

EROSION AND SEDIMENT CONTROL

1. ALL EROSION AND SEDIMENT CONTROL MEASURES

PLAN SET, THE MEASURES MANUFACTURERS

PROTECTION, LATEST REVISION. CONTRACTOR

2. CONTRACTOR SHALL LIMIT EXCAVATION AND

EARTHWORK TO NO MORE THAN 5 ACRES

AREAS OF COMPLETED EXCAVATION AND

3. EXPOSED OR OPEN AREA FREE OF VEGETATION

TO THAT WHICH CAN BE MULCHED IN ONE DAY.

4. CONTRACTOR SHALL MINIMIZE THE AMOUNT OF TIME

AN AREA UNDERGOING ACTUAL CONSTRUCTION

AREAS WHICH ARE INITIALLY DISTURBED BUT

FURTHER CONSTRUCT IS PLANNED MUST BE

WILL BE LEFT EXPOSED OR FREE OF VEGETATION.

TEMPORARILY STABILIZED WITHIN 14 DAYS, IF THE

AREAS ARE BEING LEFT FOR AN EXTENDED PERIOD

OF TIME, AREAS WHICH ARE CONSIDERED FINISHED

SHALL BE PERMANENTLY STABILIZED WITHIN 14

5. ALL EROSION AND SEDIMENT CONTROL BMPs SHALL

CONTRACTOR SHALL MAINTAIN THE BMPS

6. REPAIR AND/OR REPLACE ANY EROSION AND

SEDIMENT CONTROL BMPs WHICH HAVE BEEN

OR OTHERS, THE REPAIR SHALL BE UNDERWAY

PROBLEM HAS BEEN IDENTIFIED BY THE INSPECTOR

WITHIN THE END OF THE NEXT WORKING DAY AND

COMPLETED WITHIN 7 DAYS OR BEFORE THE NEXT

DAYS OF PERMANENT STABILIZATION. PERMANENT

STABILIZATION IS DEFINED AS 70% GRASS CATCH IN

DAMAGED OR NEED MAINTENANCE. ONCE A

INDIVIDUAL DETAILS FOR EACH BMP.

THROUGHOUT CONSTRUCTION. REFER TO

BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE.

DAYS OF THE FINISH WORK.

VEGETATED AREAS.

SITE AT ALL TIMES.

SHALL HAVE A COPY OF THE LATEST REVISION ON

CONCURRENT THROUGHOUT THE CONSTRUCTION

EARTHWORK PRIOR TO MOVING ONTO A NEW AREA.

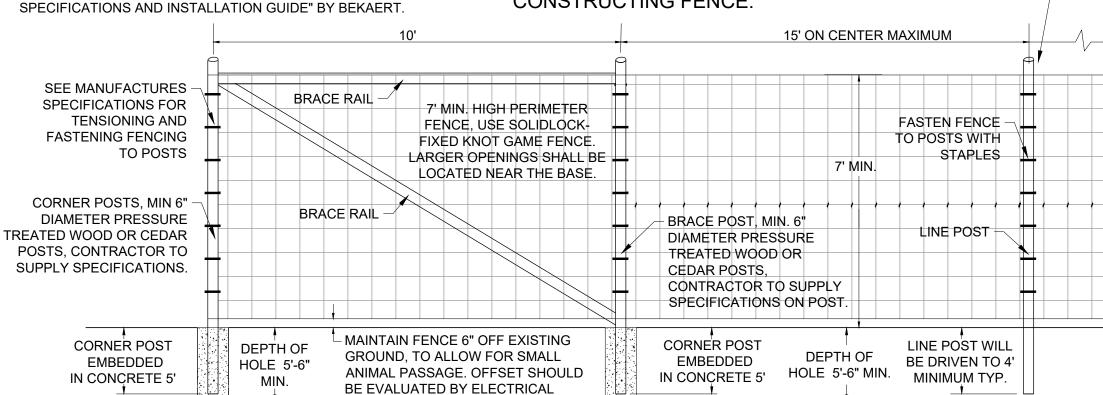
FROM CONSTRUCTION ACTIVITY SHALL BE LIMITED

SITE AT ONE TIME. TEMPORARY STABILIZE ALL

SHALL BE PERFORMED IN ACCORDANCE WITH THIS

SPECIFICATIONS, DEPARTMENT OF ENVIRONMENTAL

 CLASS 3 GALVANIZED APPROVAL PRIOR TO ORDERING AND CONSTRUCTING FENCE



EPSC CONSTRUCTION NOTES:

SWALES, WATER BARS, AND/OR CHECK DAMS.

STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:

WETLANDS AND STREAMS).

PRACTICABLE.

TO THOSE AREAS.

SLOPE DRAIN STRUCTURE.

A. LESS THAN ±5% SLOPE

C. VEGETATED

DITCHES.

BODY, INCLUDING A DITCH

FEASIBLE, BUT NOT IN RESOURCE AREAS.

AREAS WHERE DUST MAY BE GENERATED.

1. EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED TO THE EXTENT

2. A VEGETATED BUFFER SHALL BE MAINTAINED FOR WATER BODIES WHERE FEASIBLE (E.G.,

3. TO THE EXTENT PRACTICABLE, SURFACE FLOW SHALL BE DIVERTED AWAY FROM EXPOSED

RESOURCE AREAS (E.G., WETLANDS, STREAMS, RTE PLANT SPECIES) SHALL BE FLAGGED

PRIOR TO ANY CONSTRUCTION RELATED ACTIVITIES OCCURRING WITHIN CLOSE PROXIMITY

EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN

APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT

DOES NOT VIOLATE WATER QUALITY STANDARDS OR CONTRIBUTE TO EROSION. DEWATERING

DETAILS SHALL BE REVIEWED AND APPROVED BY THE CONSTRUCTION ENGINEER PRIOR TO

CONCENTRATED RUNOFF SHALL NOT FLOW DOWN STEEP SLOPES UNLESS CONTAINED

A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.

WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL (SEE DETAILS), FLUME, OR

UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING

B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES, WHERE

8. WHERE FEASIBLE, ALL SEDIMENT REMOVED FROM SEDIMENT CONTROL PRACTICES AS PART

B. AT LEAST 100 FEET FROM ANY DOWNSLOPE WATER BODY OR CONVEYANCE TO A WATER

OF MAINTENANCE SHALL BE DISPOSED OF IN AN AREA THAT IS AT LEAST ONE OF THE

FOLLOWING, WITH IMMEDIATE STABILIZATION FOLLOWING DISPOSAL OF MATERIAL:

9. DISTURBED AREAS BORDERING OR DRAINING TO EXISTING ROADS SHALL HAVE AN

APPROPRIATE SEDIMENT BARRIER (E.G., SILT FENCE) SPANNING THE EDGE OF THE

10. IN ADVANCE OF PREDICTED RAINFALL OR SNOWMELT, ALL EPSC MEASURES THAT ARE

NEEDED. IF NECESSARY, THIS SHALL INCLUDE TEMPORARY STABILIZATION OF ALL

DISTURBED SOILS ON THE SITE IN ADVANCE OF THE ANTICIPATED RUNOFF PERIOD.

11. DUST CONTROL SHALL BE HANDLED VIA WATER APPLICATION TO ROADWAYS AND OTHER

DISTURBANCE TO PREVENT WASHING OF SEDIMENT ONTO ROADWAYS OR INTO ROAD

LOCATED IN ACTIVE AREAS OF EARTH DISTURBANCE SHALL BE INSPECTED AND REPAIRED, AS

LINE POSTS 15' ON CENTER MAXIMUM.

LINE POSTS SHALL BE MIN. 4" DIAMETER

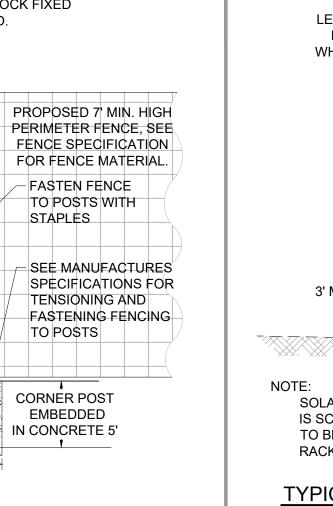
PRESSURE TREATED WOOD OR CEDAR

AS CORNER POSTS ON THIS DETAIL.

POST CONSTRUCTED IN SIMILAR FASHION

SOILS VIA DIVERSION BERMS, EARTH DIKES, PERIMETER DIKES/SWALES, TEMPORARY

TYPICAL FIXED KNOT GAME FENCE AROUND ARRAY (RENDERING)



STAPLES

LENGTH IS DETERMINED BY PV MODULE DIMENSIONS, WHICH CAN VARY SLIGHTLY BETWEEN DIFFERENT **MANUFACTURERS** 10' -12' **RACKING** SCHEMATIC. EXACT **DESIGN TO BE** 3' MIN. - EXISTING **DETERMINED** GROUND - POST EMBEDMENT TO BE DETERMINED SOLAR ARRAY CROSS SECTION IS SCHEMATIC. FINAL DESIGN TO BE DETERMINED BY THE RACKING MANUFACTURER. TYPICAL SOLAR ARRAY CROSS SECTION (RENDERING)

ENGINEER TO ENSURE COMPLIANCE

WITH ELECTRICAL CODE.

WESTPORT PLANNING **BOARD APPROVAL**

DATE

GADUS

Horseneck Road Westport, Massachusetts



APPLICANT:





ISSUED FOR PERMIT REVIEW NOT FOR CONSTRUCTION

P: (802) 878-0375

www.krebsandlansing.com

CIVIL ENGINEER:

164 Main Street, Suite 201

Colchester, Vermont 05446

Krebs and Lansing Consulting Engineers, Inc. 164 Main Street, Suite 201 Colchester, Vermont 05446

ENVIRONMENTAL

BRI Environmental 276 Canco Road Portland, ME 04103

OWNER & PROPERTY INFORMATION: Owner: Bruce and Patricia Mayall

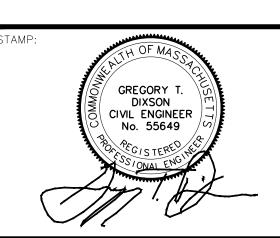
Fall River, MA 02720

Owner Address: 124 Milton Street

Parcel ID: 76-69S-0

Parcel Address:

0 Horseneck Road Westport, MA 02790

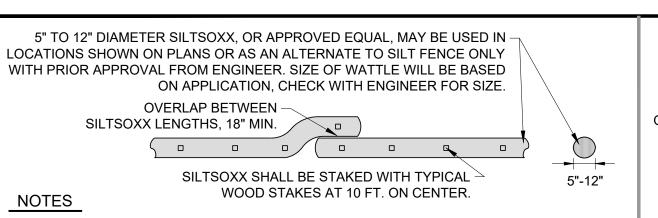


ı			
I	REV. NO.	REVISIONS/COMMENTS	DATE
l	1.	Revise design for new wetlands and	09/17/2
l		project updates	
	2.	Updates for Peer Review Report	11/17/21
	3.	Update Fire Department comments	01/20/2
	4.	Update distance under fence	01/31/2
	5.	Address Board Member Mr. Daylor's	03/03/2
		comments and Public comments	
	DRAV	MING TITLE:	

DETAILS

DATE of Issue: 05/03/2021 Drawn by: EJM/GTD Checked by: GT[Scale: N/A Project No.: 21220

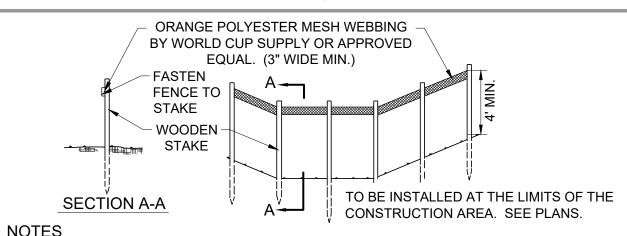
C-3.07



1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE, AND REMOVAL OF SILTSOXX IN ALL LOCATIONS SHOWN ON THE PLANS. WATTLE MAY BE LEFT IN PLACE IF THE CONTRACTOR SEEDS AND MULCHES OVER SILTSOXX FOR GROWTH POST CONSTRUCTION.

- 2. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND ADDITIONAL SILTSOXX WILL BE ADDED WHEN SEDIMENT REACHES HALF OF PRODUCT HEIGHT.
- 3. WHEN INSTALLING LENGTHS OF WATTLE, LENGTHS WILL OVERLAP BY MINIMUM 18" WHEN TRANSITIONING TO A NEW LENGTH OF SILTSOXX.
- 4. CONTRACTOR SHALL REFER TO ALL MANUFACTURES SPECIFICATIONS AND DETAILS.
- 5. SILTSOXX IS A SPECIFIC MANUFACTURER, OTHER MANUFACTURERS WITH EQUAL PRODUCTS MAY BE USED IF APPROVED BY ENGINEER.
- 6. SILTSOXX CAN BE USED AS A SILT FENCE ALTERNATIVE, WITH PRIOR APPROVAL OF THE ENGINEER.

TYPICAL SILTSOXX SEDIMENT CONTROL



- . ACCEPTABLE EPSC MEASURE DETAILS ARE PROVIDED BELOW.
- 2. LIMITS OF DISTURBANCE (OR "CONSTRUCTION DEMARCATION") SHALL BE INSTALLED PRIOR TO ANY EARTH DISTURBING ACTIVITIES.
- BARRIER TAPE/ROPE: FOR USE WHERE PROPOSED DISTURBANCE BORDERS NON-WOODED, VEGETATED AREAS MORE THAN 100 FT FROM THE NEAREST WATER RESOURCE (STREAM, BROOK, LAKE, POND, WETLAND, ETC.). BARRIER TAPE IS HIGH VISIBILITY FIBERGLASS TAPE, MINIMUM 3" IN WIDTH COMMONLY USED IN SKI AREAS FOR DEMARCATING CLOSED AREAS. BARRIER TAPE AND ROPE SHOULD BE ATTACHED TO STAKES, AT A MINIMUM HEIGHT OF 4 FT FROM THE GROUND.
- I. MINIMUM 1 TO 2 ROWS OF MESH BARRIER TAPE TO BE INSTALLED ALONG CONSTRUCTION PERIMETER.
- 5. EACH ROW OF BARRIER TAPE TO BE 3" WIDE MINIMUM.

BARRIER TAPE TO BE ORANGE.

- 7. SECURE BARRIER TAPE TO STAKES OR EXISTING TREE TRUNKS WITH BOTTOM ROW AT 4' DISTANCE FROM GROUND SURFACE (MINIMUM).
- 8. MAINTAIN AND REPLACE AS NEEDED. REMOVE AT COMPLETION OF PROJECT PER OSPC
- 9. IN EVENT THE OSPC DETERMINES BARRIER TAPE IS NOT SUFFICIENT, REPLACE WITH ORANGE CONSTRUCTION FENCE OR SNOW FENCE.

TYPICAL CONSTRUCTION LIMIT BARRIER

9" SILTSOXX, OR APPROVED **EQUAL** 9" MAX. ON CENTER € OF GRASSED -LINED DITCH - STAKE SILTSOXX **EVERY 5' AND/OR AT GRADE TRANSITIONS** SEDIMENT FROM **BEHIND SILTSOXX** - COIL SILTSOXX FABRIC AROUND ONCE IT HAS END STAKES ON EITHER SIDE TO ACCUMULATED ? PROVIDE ADDITIONAL SUPPORT

THE HEIGHT OF THE WATTLE PLACE SILTSOXX PERPENDICULAR TO FLOW AND CURVE SILTSOXX UPSLOPE TO CREATE A SPOONED SHAPE

- 1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE, AND REMOVAL OF SILTSOXX IN ALL LOCATIONS SHOWN ON THE PLANS. SILTSOXX MAY BE LEFT IN PLACE IF THE CONTRACTOR SEEDS AND MULCHES SILTSOXX FOR GROWTH POST CONSTRUCTION.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND ADDITIONAL SILTSOXX WILL BE ADDED WHEN SEDIMENT
- REACHES HALF OF PRODUCT HEIGHT. 3. WHEN INSTALLING LENGTHS OF SILTSOXX, LENGTHS WILL
- LENGTH OF SILTSOXX. 4. CONTRACTOR SHALL REFER TO ALL MANUFACTURES

SPECIFICATIONS AND DETAILS.

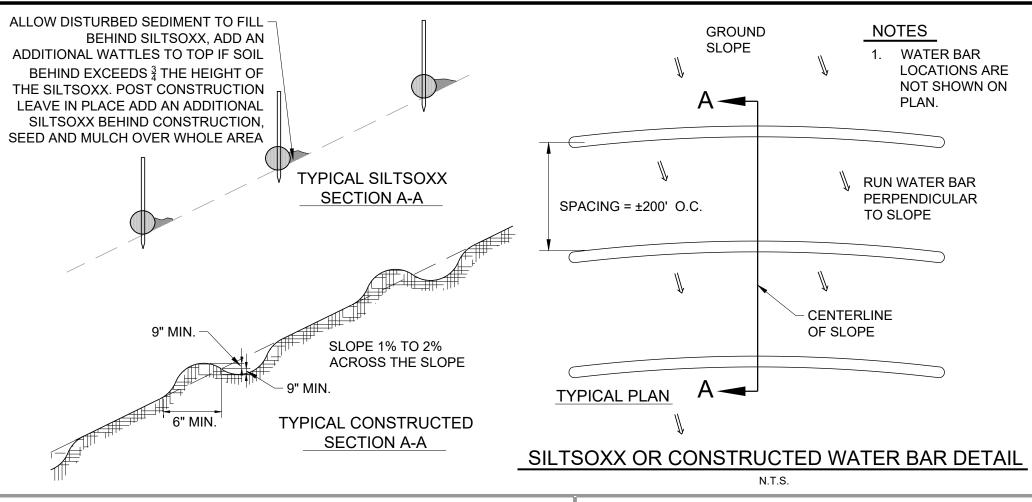
5. SILTSOXX CAN ONLY BE USED IN A GRASS LINED SWALE. MAY NOT BE USED IN STONE LINED SWALES.

OVERLAP BY MINIMUM 18" WHEN TRANSITIONING TO A NEW

- SILTSOXX CHECK DAM CAN ONLY BE USED IN CHANNELS WITH SLOPES LESS THAN 5%.
- 5. SILTSOXX IS A SPECIFIC MANUFACTURER, OTHER MANUFACTURERS WITH EQUAL PRODUCTS MAY BE USED IF APPROVED BY ENGINEER.

NOTES

TYPICAL SILTSOXX CHECK DAM DETAIL



NOTES

CONTRACTOR SHALL STABILIZE CONSTRUCTION ENTRANCE AS REQUIRED

CONTRACTOR TO USE MIRAFI 500X UNDER STONE FOR TEMPORARY

CRUSHED STONE SHALL BE ADDED OR REPLACED WHEN 80% OF THE

ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION

ENTRANCE SHALL BE PIPED BENEATH ENTRANCE. IF PIPING IS

IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES IS ALLOWED.

PROVIDE APPROPRIATE TRANSITION BETWEEN -

8" min

PROFILE

STABILIZED CONSTRUCTION ENTRANCE AND

EXISTING EDGE OF TRAVELED WAY

50' MIN.

SEE SITE PLAN

SEE SITE PLAN

4" MINUS

CRUSHED

STONE

PLAN

TO PREVENT TRACKING OF SEDIMENT OFF-SITE.

CONSTRUCTION ROADS.

4. STONE SIZE SHALL BE 1-4".

VOIDS ARE FILLED WITH SEDIMENT.

- PERIMETER CONTROLS SHALL BE UTILIZED IN SMALL AREAS < 1 ACRE. IN AREAS > 1 ACRE, TEMPORARY SEDIMENT TRAPS OR TEMPORARY SEDIMENT BASINS ARE TO BE UTILIZED.
- 2. PERIMETER CONTROLS SHALL BE INSTALLED ON DOWNSLOPE SIDE OF PLANNED EARTH DISTURBANCE.
- . PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO ANY EARTH DISTURBING ACTIVITIES WITHIN UPSLOPE CONTRIBUTING AREA.
- 4. SILT FENCE SHALL NOT BE USED AS CONSTRUCTION DEMARCATION.
- 5. SILTSOXX CAN BE USED AS A SILT FENCE ALTERNATIVE, WITH PRIOR APPROVAL OF THE ENGINEER. SEE DETAIL.
- 6. IF SILT FENCE IS INSTALLED WHEN GROUND IS FROZEN, A GRAVEL, SHOT

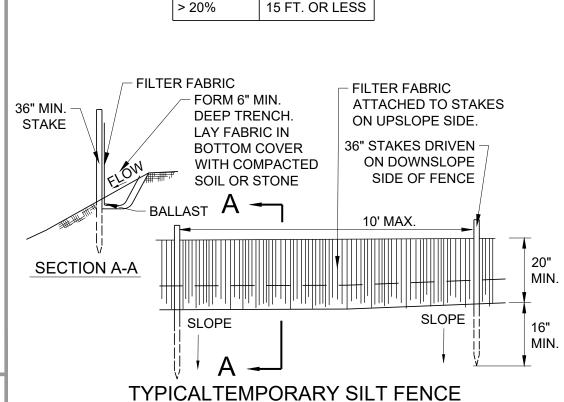
ROCK, OR SAND BALLAST MUST BE USED.

SILT FENCE SPACING CHART

5% TO 10% | 50 FT. OR LESS

10% TO 20% 25 FT. OR LESS

SLOPE SPACING



N.T.S.

EXISTING

ROAD

PUBLIC

RIGHT OF

EXISTING

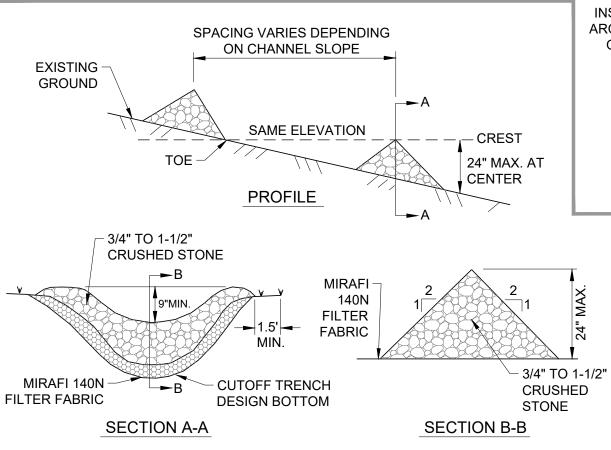
ROAD

MIN.

5" MINUS CLEAN CRUSHED STONE 12" MIN. EXISTING GROUND - CHECK WITH PROJECT ENGINEER FOR SIZING, IF NECESSARY EXISTING GROUND 12" MIN. BASIC UP SLOPE DIVERSION SWALE. SWALE SHALL BE LINED WITH STONE IF LONGITUDINAL SLOPE EXCEEDS 3%. USE 5" MINUS CLEAN CRUSHED NOTES

UPSLOPE DIVERSION BERM WILL BE USED AS SHOWN ON PLAN AND DETAIL. DIVERSION SWALES ARE NOT PART OF THIS DESIGN, IF NECESSARY DURING CONSTRUCTION, CONTRACTOR SHALL CHECK WITH THE PROJECT ENGINEER

TYPICAL UPSLOPE DIVERSION DETAIL



STONE CHECK DAM

NOTES

SETTLE.

1. PROPER INSTALLATION OF

FENCE THE ABILITY TO

TEMPORARILY POND

J-HOOKS PROVIDES SILT

RUNOFF, ALLOWING TIME FOR SEDIMENTS TO

2. LONG RUNS OF SILT FENCE

BETWEEN J-HOOKS

SHOULD BE AVOIDED

REFER TO ADJACENT

TABLE FOR PROPER

SPACING OF J-HOOKS.

3. J-HOOKS SHOULD BE BUILT

ALONG CONTOUR IN A

"SMILE" SHAPE WITH A

4. ALONG A NARROW RIGHT

OF WAY, NARROWER

J-HOOKS CAN BE USED

WITH A HIGHER SPACING

MINIMUM WIDTH OF 20 FEET

AND MINIMUM DEPTH OF 10

SECTION A-A OTHERWISE SPECIFIED. SWALE OR AREA OF CONCENTRATED FLOW, PROVIDE **CHECK DAMS** IN SWALE, AS NECESSARY. TEMPORARY POOLING AREA AND SEDIMENT TRAP DURING CONSTRUCTION

MIN

TO PURCHASING. 4" DEPTH OF VAOT 704.05A COARSE ROAD GRAVEL UNDER PAD, KEY INTO EXISTING GRADE DISPERSION PAD, INSTALL PERPENDICULAR TO FLOW FROM SWALE. DISPERSION PAD SHALL BE 10' MIN LONG UNLESS

6" MINUS STONE, CONTRACTOR

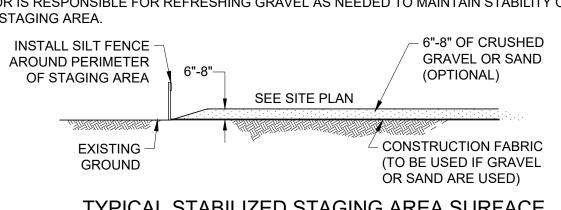
TO PROVIDE GRADATION PRIOR

1. CONTRACTOR SHALL REPLACE STONE AS NECESSARY TO PREVENT SEDIMENT BUILD UP.

2. SEDIMENT SHOULD BE REMOVED FROM BEHIND DISPERSION PAD ONCE THE ACCUMULATED HEIGHT HAS REACHED ½ THE HEIGHT OF THE DISPERSION PAD. SEDIMENT SHOULD ALSO BE REMOVED AFTER FINAL STABILIZATION OF

DISPERSION PAD DETAIL

- SILT FENCING TO BE INSTALLED BEFORE CONSTRUCTION OF STAGING AREA IS INSTALLED.
- INSTALL AND MAINTAIN SURFACE OF STAGING AREA WITH CONSTRUCTION FABRIC OVER EXISTING GROUND. COVER WITH 6"-8" OF CRUSHED GRAVEL OR SAND, SEE DETAIL. MAINTAIN DEPTH OF GRAVEL OR SAND THROUGHOUT PROJECT CONSTRUCTION.
- INSTALL AND MAINTAIN STABILIZED CONSTRUCTION ENTRANCE, SEE DETAIL. INSTALL WOODEN GATE AT ENTRANCE OF OF STAGING AREA.
- ALL ABUTTERS TO STAGING AREA WILL BE NOTIFIED OF THE PROJECT. DUE TO LIKELY CONSTRUCTION NOISE, ACTIVITIES AT STAGING AREA AND CONSTRUCTION SITE SHALL ABIDE BY LOCAL NOISE ORDINANCES.
- STAGING AREA IS LIKELY TO BE USED FOR PARKING DURING CONSTRUCTION, STAGING OF CONSTRUCTION MATERIALS, BASE OF PROJECT OPERATIONS AND MISCELLANEOUS PROJECT ACTIVITIES.
- CLOSE TO PROJECT CONSTRUCTION COMPLETION, STAGING AREA WILL BE REMOVED. TOP LAYER OF GRAVEL OR SAND AND CONSTRUCTION FABRIC SHALL BE REMOVED AND PROPERLY DISPOSED OF. RESTORE THE PORTION OF EXISTING MEADOW COVERED BY STAGING AREA BY SEEDING, MULCHING, AERATING, ETC AS NECESSARY TO RESTORE FIELD TO ITS NATURAL PRECONSTRUCTION STATE.
- CONTRACTOR IS RESPONSIBLE FOR REFRESHING GRAVEL AS NEEDED TO MAINTAIN STABILITY OF STABILIZED STAGING AREA.



TYPICAL STABILIZED STAGING AREA SURFACE

NOTES

- 1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES GRADES AND LOCATIONS SHOWN IN THE PLAN.
- 2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
- 3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
- 4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
- 5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

WESTPORT PLANNING

BOARD APPROVAL

DATE

GREGORY T. CIVIL ENGINEER No. 55649

GADUS

Horseneck Road

Westport, Massachusetts

IRONWOOD

BIODIVERSITY RESEARCH INSTITUTI

ISSUED FOR PERMIT REVIEW

NOT FOR CONSTRUCTION

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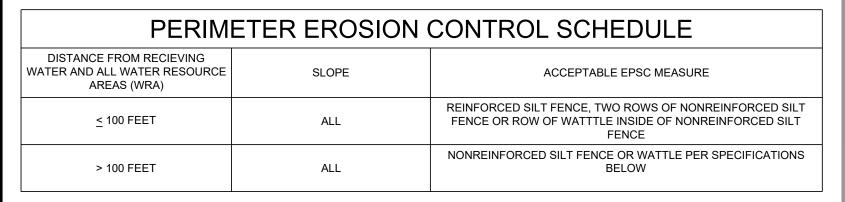
project updates 2. Updates for Peer Review Report 11/17/21 3. Update Fire Department comments 01/20/2			
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2. Updates for Peer Review Report 3. Update Fire Department comments 4. Address Board Member Mr. Daylor's comments and Public comments	1.	Revise design for new wetlands and	09/17/2
3. Update Fire Department comments 01/20/2 4. Address Board Member Mr. Daylor's 03/03/2 comments and Public comments		project updates	
4. Address Board Member Mr. Daylor's 03/03/2 comments and Public comments	2.	Updates for Peer Review Report	11/17/21
comments and Public comments	3.	Update Fire Department comments	01/20/2
	4.	Address Board Member Mr. Daylor's	03/03/2
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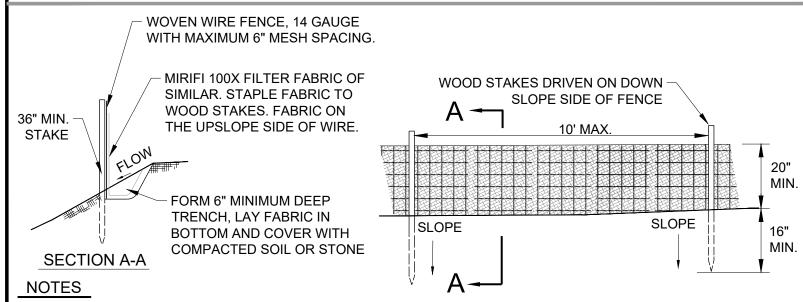
DETAILS

C-3.02

REV. NO.	REVISIONS/COMMENTS	DATE	
1.	Revise design for new wetlands and	09/17/	
	project updates		
2.	Updates for Peer Review Report	11/17/2	
3.	Update Fire Department comments	01/20/	
4.	Address Board Member Mr. Daylor's	03/03/	
	comments and Public comments		
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ATE of Issue: 05/03/2021 rawn by: EJM/GTD Checked by: GTD Scale: N/A roject No.: 21220





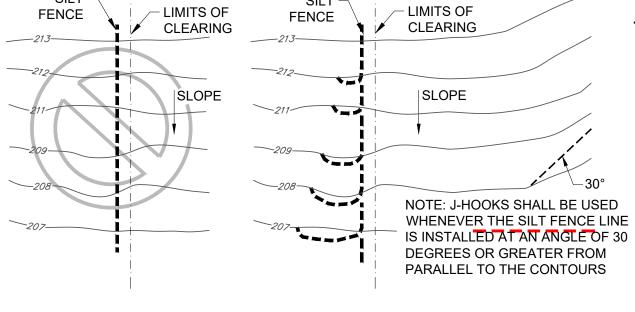
- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES WIRE FENCE
- REINFORCEMENT REQUIRED WITHIN 100 FT UPSLOPE OF RECEIVING WATERS. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH ITIES SPACED 24" AT THE TOP AND
- MID SECTION WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
- FILTER CLOTH SHALL BE MIRAFI 100X OR APPROVED EQUIVALENT. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE OR EQUIVALENT
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE, AND REMOVAL OF SILT FENCE IN ALL LOCATIONS SHOWN ON THE PLANS.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF
- OF FABRIC HEIGHT. REMOVE SILT FENCE AFTER SUCCESSFUL ESTABLISHMENT OF VEGETATION. OTHER MEASURES MAY BE USED TO REINFORCE SILT FENCE IN PLACE OF WIRE MESH, CONTRACTOR WILL APPROVE ALL MEASURES WITH ENGINEER PRIOR TO USE
- IF SILT FENCE IS INSTALLED WHEN GROUND IS FROZEN, A GRAVEL, SAND OR WATTLE BALLAST MUST BE USED. CONTRACTOR MAY USE IVI WIRE BACK SILT FENCE (IVI PRODUCT 940-3610-B48-W6H) OR EQUIVALENT.
- 10. SILT FENCE SHALL BE INSTALLED ALONG CONTOURS.
- TYPICAL TEMPORARY
- 11. SILT FENCE SHALL NOT BE LOCATED IN AREAS OF CONCENTRATED FLOW. 12. DRAINAGE AREA SHALL BE $\leq \frac{1}{4}$ ACRE PER 100 LINEAR FEET OF SILT FENCE. REINFORCED SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE N.T.S.

EXISTING

GROUND

EXISTING

GROUND



INCORRECT SILT FENCE INSTALLED PARALLEL TO SLOPE (PERPENDICULAR TO CONTOUR) IN ONE, LONG RUN

SLOPE

STEEPNESS

2:1 SLOPE (50%

3:1 SLOPE (33%)

4:1 SLOPE (25%)

5:1 SLOPE OR

FLATTER (50%)

CORRECT SILT FENCE INSTALLED IN SHORTER RUNS WITH J-HOOKS TO AVOID CONCENTRATION OF FLOWS AT ONE LOCATION BY TRAPPING RUNOFF AT MULTIPLE POINTS ALONG A SLOPE.

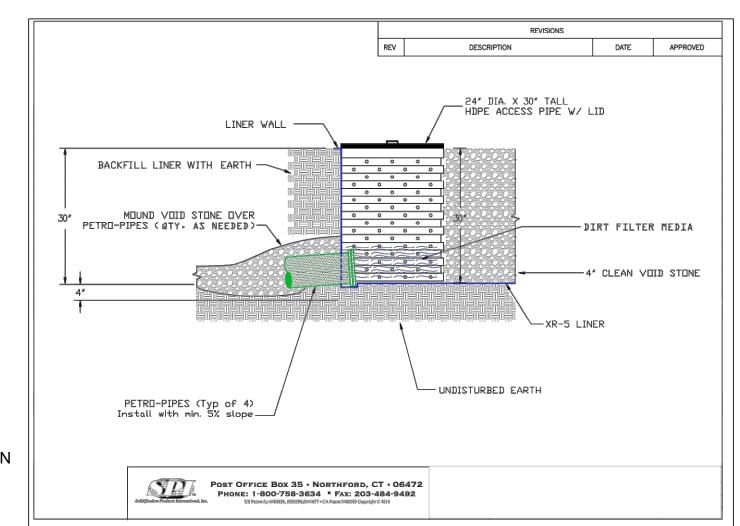
─ AVOID LARGE MAXIMUM SPACING BETWEEN SILT FENCE J-HOOKS (FT.) 100

GAPS BETWEEN BOTTOM OF ABOVE GRADIENT J-HOOK AND THE NEXT SILT FENCE LINE. (6" MAXIMUM)

TYPICAL SILT FENCE "J-HOOK" CONSTRUCTION

N.T.S.

FREQUENCY.



NOTE: EXACT EQUIPMENT HAS NOT BEEN DETERMINED AT THIS TIME. SOLAR TECHNOLOGY IS AN EVOLVING FIELD AND THE CONSTRUCTION DATE FOR THIS PROJECT COULD BE YEARS OUT. PROJECT ENGINEERS WILL EVALUATE EQUIPMENT PURCHASED FOR CONSTRUCTION AND MAKE SURE IT MEETS THE SPECIFICATIONS BELOW.

VOLUME CALCULATIONS

REQUIRED MINIMUM FREEBOARD (24-HOUR DURATION, 25 YEAR STORM) = 6.02" (0.50')

CONTAINMENT AREA & PAD = 17' X 17' = 289 S.F. VOLUME OF FREEBOARD REQUIRED = 289 S.F. X 0.50 FT. = 145C.F.

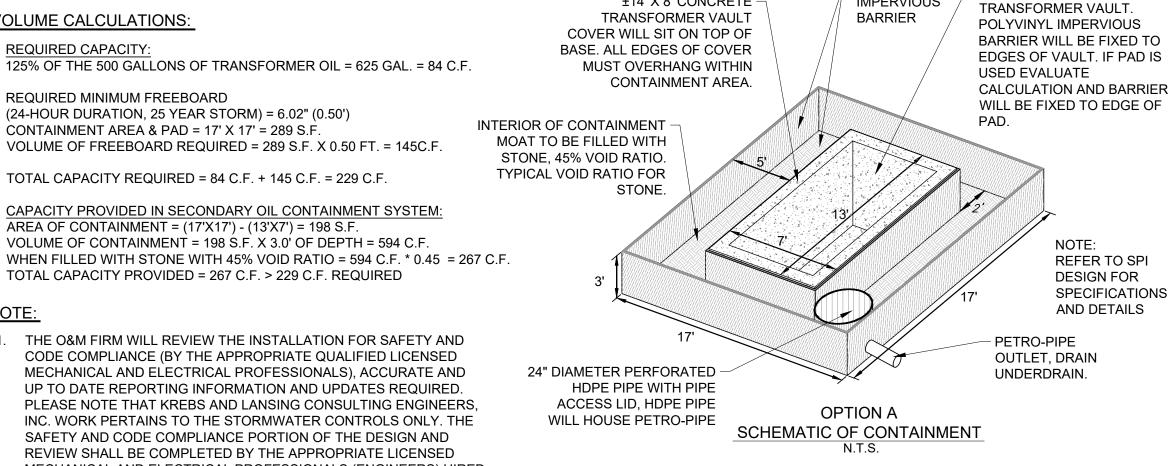
TOTAL CAPACITY REQUIRED = 84 C.F. + 145 C.F. = 229 C.F.

CAPACITY PROVIDED IN SECONDARY OIL CONTAINMENT SYSTEM:

AREA OF CONTAINMENT = (17'X17') - (13'X7') = 198 S.F. VOLUME OF CONTAINMENT = 198 S.F. X 3.0' OF DEPTH = 594 C.F. WHEN FILLED WITH STONE WITH 45% VOID RATIO = 594 C.F. * 0.45 = 267 C.F. TOTAL CAPACITY PROVIDED = 267 C.F. > 229 C.F. REQUIRED

- . THE O&M FIRM WILL REVIEW THE INSTALLATION FOR SAFETY AND CODE COMPLIANCE (BY THE APPROPRIATE QUALIFIED LICENSED MECHANICAL AND ELECTRICAL PROFESSIONALS), ACCURATE AND UP TO DATE REPORTING INFORMATION AND UPDATES REQUIRED. PLEASE NOTE THAT KREBS AND LANSING CONSULTING ENGINEERS INC. WORK PERTAINS TO THE STORMWATER CONTROLS ONLY. THE SAFETY AND CODE COMPLIANCE PORTION OF THE DESIGN AND REVIEW SHALL BE COMPLETED BY THE APPROPRIATE LICENSED MECHANICAL AND ELECTRICAL PROFESSIONALS (ENGINEERS) HIRED BY THE O&M FIRM PRIOR TO CONSTRUCTION OF THE PROJECT. ANY APPROPRIATE CODE OR SAFETY MODIFICATIONS DICTATED BY THAT REVIEW SHALL BE INCORPORATED INTO O&M PROTOCOLS FOR THE SITE PRIOR TO CONSTRUCTION COMMENCING.
- THIS DESIGN ASSUMES THAT ALL PENETRATIONS THROUGH THE CONCRETE BASE OF THE TRANSFORMER VAULT COVER WILL BE SEALED. IF PENETRATIONS ARE NOT SEALED CONTRACTOR MUST MAKE BOTTOM OF THE TRANSFORMER VAULT SUMP WATER TIGHT OR INSTALL AN OIL REACTIVE PLUG IN ALL VAULT DRAINS, "PETRO PLUG" OR APPROVED EQUAL.
- 3. THIS DESIGN IS FOR A 2.000 KVA PAD MOUNTED TRANSFORMER BY COOPER POWER SYSTEMS. FILLED WITH 500 GALLONS OF FLUID.
- 4. SECONDARY OIL CONTAINMENT WILL BE REVIEWED PRIOR TO INSTALLATION AND DESIGNED SPECIFICALLY FOR THE EQUIPMENT BEING INSTALLED. EQUIPMENT MANUFACTURER MAY PROVIDE THEIR OWN SECONDARY OIL CONTAINMENT. CONTAINMENT DESIGN WILL NEED TO BE REVIEWED BY THE ENGINEER AND FIT THE STATE SPECIFIED VOLUME.

TYPICAL SECONDARY OIL CONTAINMENT DESIGN FOR 1,500 kVA TO 2,000 kVA TRANSFORMERS

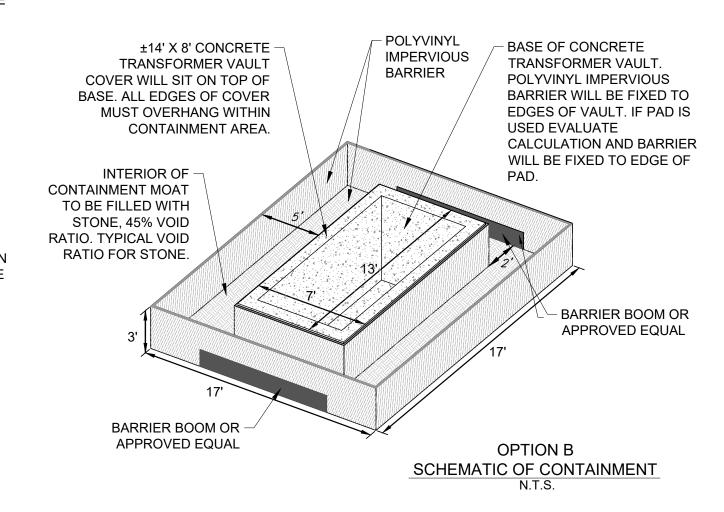


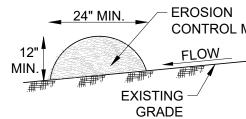
±14' X 8' CONCRETE

- POLYVINYL

IMPERVIOUS

BASE OF CONCRETE





COMPOSITION:

EROSION CONTROL MIX BERM SHALL BE MANUFACTURED ON OR OFF THE PROJECT SITE SUCH THAT ITS COMPOSITION IS IN ACCORDANCE WITH THE MAINE DEPT. OF EROSION CONTROL AND SEDIMENT CONTROL BMP, B-1 SEDIMENT BARRIERS. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED WOOD AND BARK CHIPS AND/OR ACCEPTABLE MANUFACTURED PRODUCTS. GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE. ALL

MATERIALS USED TO MANUFACTURE

THE EROSION CONTROL MIX SHALL BE

NATIVE MASSACHUSETTS MATERIALS.

- CONTROL MIX 1. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL CONTOUR.
 - 2. EXISTING GROUND SHALL BE PREPARED AS NEEDED SUCH THAT THE BARRIER LIES NEARLY FLAT ALONG THE GROUND TO AVOID THE CREATION OF VOIDS AND BRIDGES IN ORDER TO MINIMIZE THE POTENTIAL OF WASH OUTS UNDER THE BARRIER.
 - 3. ON SLOPES < 5% OR AT THE BOTTOM OF STEEPER SLOPES (<2:1) UP TO 20' LONG, THE BARRIER MUST BE A MINIMUM OF 12" HIGH, AS MEASURED ON THE UPHILL SIDE OF THE BARRIER, AND A MINIMUM OF 2 FT. WIDE. ON LONGER OR STEEPER SLOPES, THE BARRIER SHALL BE WIDER TO ACCOMMODATE ADDITIONAL FLOW.
 - 4. EROSION CONTROL MIX MAY BE INSTALLED WHERE SILT FENCE IS ILLUSTRATED AND SCHEDULED ON THE DESIGN PLANS EXCEPT IN, BUT NOT LIMITED TO, THE FOLLOWING AREAS: WETLAND AREAS, AT POINTS OF CONCENTRATED FLOW, BELOW STORMWATER END SECTIONS AT OUTFALLS, AROUND CATCH BASINS AND CLOSED STORM SYSTEMS AND AT THE BOTTOM OF STEEP SLOPES (UP TO 2:1 WITH ENGINEER APPROVAL) THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM. IN WETLAND BUFFER AREAS EROSION CONTROL MIX MAY BE USED ONLY IN THE SPECIFIC AREAS THAT HAVE RECEIVED REGULATORY APPROVAL FOR DISTURBANCE FROM EITHER THE STATE OF MASSACHUSETTS OR THE U.S. ARMY CORPS OF ENGINEERS. EROSION CONTROL MIX MAY NOT BE USED IN WETLAND AREAS.

NOTES

- 1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT (VEGETATION DUFF LAYER). THE POOL AREA SHALL BE CLEARED.
- 2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
- 3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER. THE USE OF GREATER SLOPES MAYBE PERMITTED WITH OSPC OR EPSC SPECIALIST APPROVAL.
- 4. THE STONE USED IN THE OUTLET SHALL BE VAOT 706.04 TYPE 1 STONE OR APPROVED ON SITE SHOT ROCK, PLACED ON MIRAFI 140N OR APPROVED EQUAL DRAINAGE FABRIC.
- 5. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ¹/₂ THE DESIGN DEPTH OF THE TRAP. IT SHALL BE PLACED ON SITE AND STABILIZED.
- 6. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND AS REQUIRED BY THE PERMIT.
- 7. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND SEDIMENT ARE CONTROLLED.
- PERMANENT STORMWATER POND, THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED. 9. THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS 5 ACRES.

8. IF THE SEDIMENT TRAP IS NOT IN THE LOCATION OF A

10. GENERAL SIZING REQUIREMENTS FOR ANY SEDIMENT TRAPS NOT IN THE LOCATION OF A PERMANENT STORMWATER POND, SHALL BE 3,600 CUBIC FEET PER ACRE OF DRAINAGE AREA. VOLUME CALCULATION FOR NATURAL SEDIMENT TRAPS MAY BE APPROXIMATED USING THE SURFACE AREA AT OUTLET

ELEVATION (A), TRAPS MAXIMUM DEPTH (D) AND THE

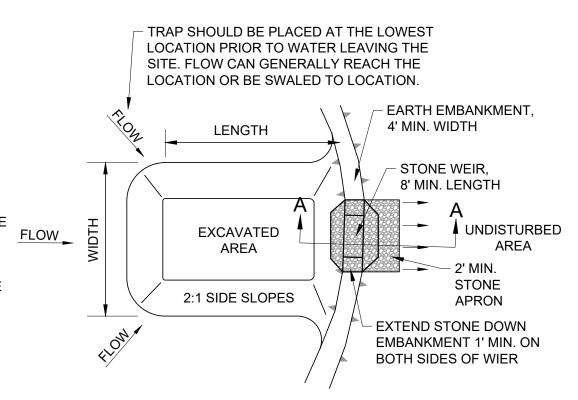
FOLLOWING EQUATION:

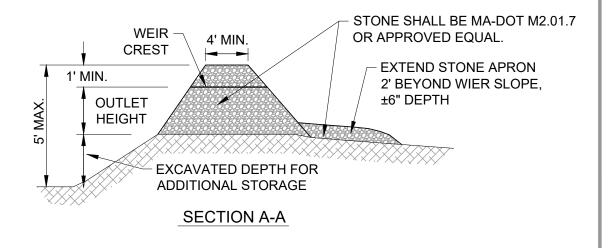
TOTAL VOLUME = 0.4 * A (IN SQUARE FEET) * D (FEET)

FOR CONSTRUCTED/EXCAVATED TEMPORARY SEDIMENT TRAPS THE SIZE SHALL BE ADJUSTED PROPORTIONALLY FOR LARGER DRAINAGE AREAS BASED ON THE BELOW CHART.

APPROX. DRAINAGE AREA	APPROX. STORAGE VOLUME	RECOMMENDED BOTTOM DIMENSIONS	RECOMMENDED DIMENSIONS AT OUTLET	DEPTH AT OUTLET	SIDE SLOPES
0.25 ACRES (±10,900 S.F.)	±900 C.F.	10 FT. WIDE X 13 FT. LONG	22 FT. WIDE X 25 FT. LONG	3 FT.	2:1

- 11. FOR THOSE TEMPORARY SEDIMENT TRAPS TO BE PERMANENT DRY OR WET PONDS, SEDIMENT SHALL BE REMOVED AND THE ENTIRE AREA SEEDED AND MULCHED OR COVERED WITH EROSION CONTROL MATTING PRIOR TO PUTTING THE STORMWATER POND INTO USE.
- 12. LOCATIONS FOR TEMPORARY SEDIMENT TRAPS TO BE APPROVED BY THE OSPC OR THE EPSC SPECIALIST.





TYPICAL TEMPORARY SEDIMENT TRAP

GADUS

Horseneck Road Westport, Massachusetts



APPLICANT





ISSUED FOR PERMIT REVIEW NOT FOR CONSTRUCTION

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ENVIRONMENTAL

BRI Environmental 276 Canco Road Portland, ME 04103

OWNER & PROPERTY INFORMATION:

Bruce and Patricia Mayall

Owner Address: 124 Milton Street Fall River, MA 02720

Parcel ID: 76-69S-0

Parcel Address: 0 Horseneck Road

Westport, MA 02790

GREGORY T CIVIL ENGINEER No. 55649

REV. NO.	REVISIONS/COMMENTS	DATE
1.	Updates for Peer Review Report	11/17/21
2.	Address Board Member Mr. Daylor's	03/03/22
	comments and Public comments	
DRA	WING TITLE:	

WESTPORT PLANNING **BOARD APPROVAL**

DATE

DATE of Issue: 09/17/2021 Drawn by: EJM/GTD Checked by: GTD

DETAILS

C-3.03

Project No.: 21220

Scale: N/A

Rev No.: