



**Dummerston Covered Bridge
Gully Erosion
West River Road
Dummerston, Vermont
April 6, 2024**

REQUEST FOR BIDS

Windham County Natural Resources Conservation District (WGNRCD), with financial assistance provided by the Watersheds United Vermont Design and Implementation Block Grant, requests bids from qualified contractors to implement water quality improvements at the Dummerston Covered Bridge, in Dummerston. Details of the project are provided on the following pages and in the attached construction drawings prepared by Fitzgerald Environmental Associates. A project timeline is provided below. Instructions for submission of the bid sheet are provided below.

Bidders are required to submit bids via email to WGNRCD at the email address listed below. **Emailed bid submissions must be received by 5:00 PM on May 6, 2024.** Late bids will not be considered. DBE businesses are encouraged to submit proposals.

Bids should be clearly marked and submitted via email to Cory Ross at: ross.wcnrcd@gmail.com

Cory Ross, District Manager, Windham County NRC

Email: ross.wcnrcd@gmail.com

Tel: 802-689-3024

Project Schedule:

April 6, 2024	Issued Invitation to Bid
April 26, 2024, at 10:00 AM	Mandatory Pre-Bid Walkthrough
May 6, 2024, at 5:00 PM	Bids Due
June 3, 2024	Construction Begins
July 1, 2024	Project Completion Date

A mandatory pre-bid site visit is scheduled for Wednesday, April 26 at 10 AM. Further details about the site work will be provided during the walk-through. Following the pre-bid meeting questions about the scope of work should be emailed to Jordan Duffy at jordan@fitzgeraldenvironmental.com.

Summary of Work:

This project consists of the stabilization of an access path down to the West River from the Dummerston Covered Bridge, as well as storm water improvements at the site. Access path stabilization includes the removal of existing stone stepping blocks, and installation of timber infiltration steps. Storm water improvements consist of the installation of a rain garden area, and a grassed infiltration basin.

Breakdown of Responsibilities:

Below is a breakdown of the project roles and responsibilities between WCNRCD, the Selected Contractor, and Fitzgerald Environmental Associates (FEA). A Contractor bid sheet is provided on the following page.

Project Items	Responsibility		
	WCNRCD	Contractor	FEA
Site Stakeout			X
Stormwater Improvements		X	
Infiltration steps; Landing and Anchoring		X	
Site Restoration/Seeding/Mulching		X	
Construction Supervision/Sign-off	X		X

Note: All imported materials (timber, crushed stone, soil, seed, mulch, coir logs) will be purchased, delivered, and installed by the Contractor.

Bid Proposal Requirements:

Bids shall be submitted to ross.wcnrcd@gmail.com. The bid proposals shall detail the following:

- Confirmation that all elements of the scope of work and schedule as described above, and shown on the plans, can be met.
- A list of personnel and explanation of prior experience. Provide up to two examples of work on projects similar to this scope of work, and two client references.
- A not-to-exceed lump sum cost proposal. The lump sum proposal shall be supported by an itemized and detailed list of unit costs for materials and labor using the attached bid sheet.

BID SHEET

Proposal Dated _____

Contractor Name _____

Contractor Signature* _____

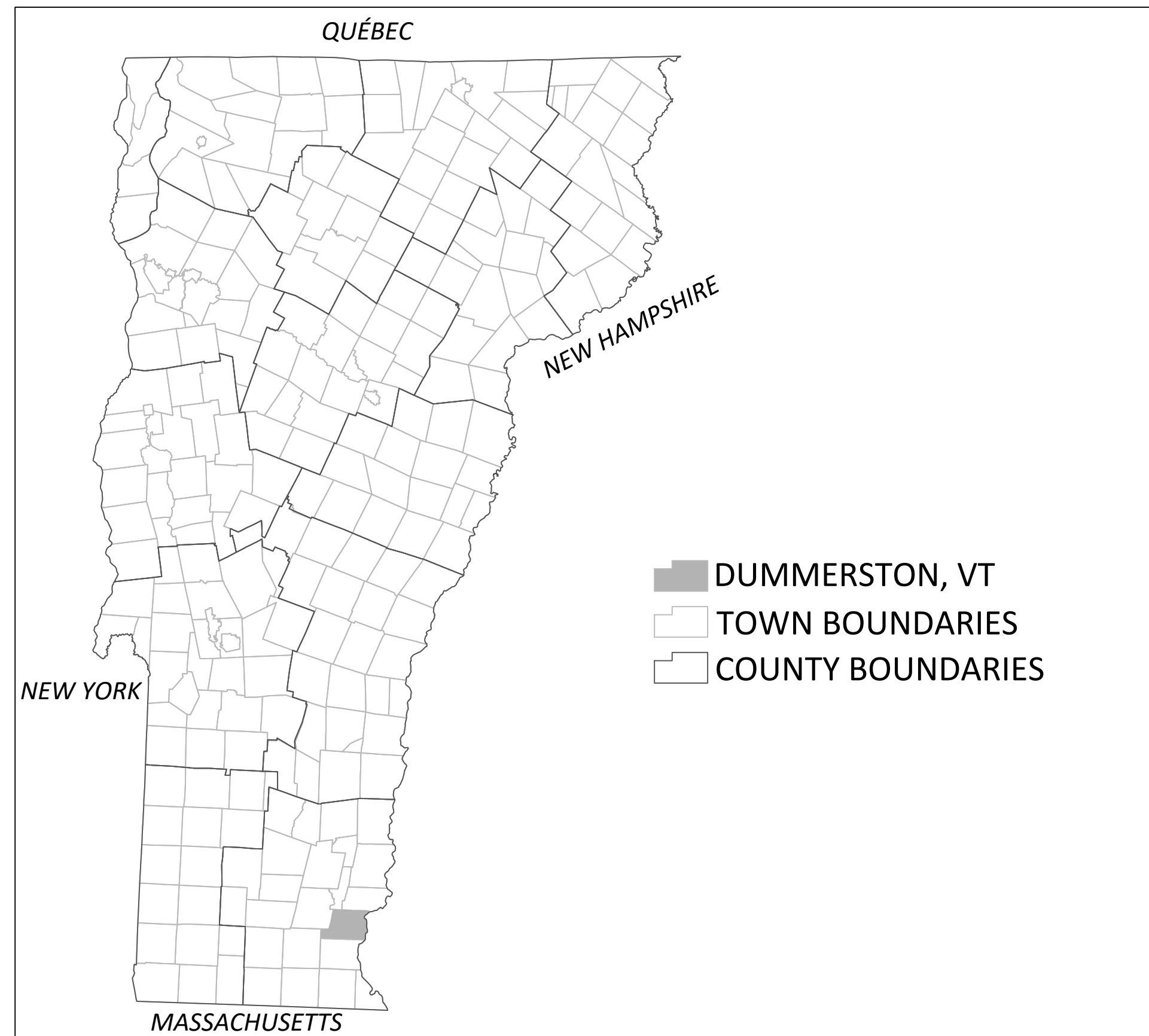
Base Bid Items:

Project Items	Quantity	Unit Cost	Subtotal
Mobilization/Demobilization	1 LS		
Rain Garden	1 LS		
Infiltration Steps	1 LS		
Landing and Anchoring	1 LS		
Site Restoration/Seeding/Mulching	1 LS		
Total Base Bid:			

***Commitment to Schedule**

In providing this bid proposal, Contractor acknowledges the **required completion date of July 1, 2024 for all aspects. If Contractor cannot meet this schedule, please provide an alternate**

Selected Contractor will be required to provide certificates of liability insurance prior to starting work.



DUMMERSTON COVERED BRIDGE ACCESS GULLY EROSION WEST RIVER ROAD, DUMMERSTON, VERMONT

100% PLANS

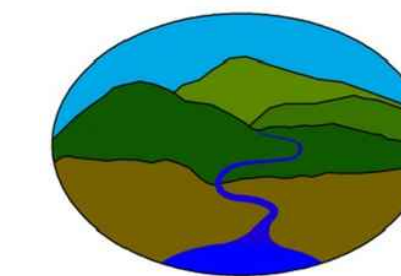
OCTOBER 23, 2023

THIS PROJECT CONSISTS OF STABILIZATION OF AN ACCESS PATH DOWN TO THE WEST RIVER FROM THE DUMMERSTON COVERED BRIDGE AS WELL AS STORM WATER IMPROVEMENTS AT THE SITE. ACCESS PATH STABILIZATION INCLUDES THE REMOVAL OF EXISTING STONE STEPPING BLOCKS AND INSTALLATION OF TIMBER INFILTRATION STEPS. STORM WATER IMPROVEMENTS CONSIST OF THE INSTALLATION OF A BIORETENTION AREA, AND A GRASSED INFILTRATION BASIN.

DRAWING INDEX

NO.	NAME	TITLE
1	EX-1	SITE PLAN - EXISTING CONDITIONS
2	PR-1	SITE PLAN - PROPOSED CONDITIONS - OVERVIEW
3	PR-2	SITE PLAN - PROPOSED CONDITIONS
4	DT-1	CONSTRUCTION DETAILS
5	N-1	CONSTRUCTION NOTES

PREPARED BY:



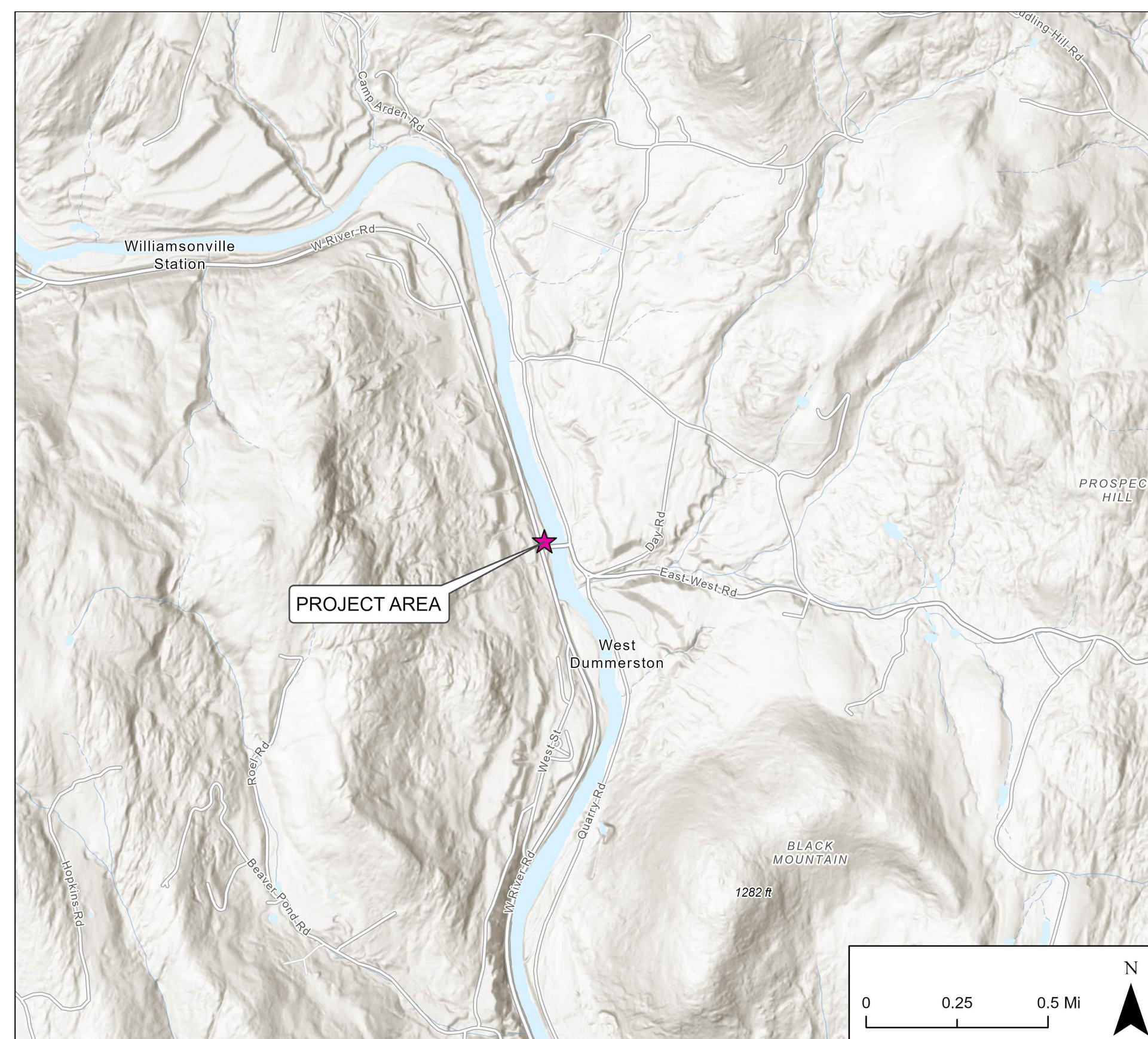
Fitzgerald
Environmental
Associates, LLC

164 Main Street, Suite 2
Colchester, VT 05446
Telephone: 802.876.7778
www.fitzgeraldenvironmental.com

PREPARED FOR:



28 Vernon Street, Suite 332
Brattleboro, VT 05301



EXISTING CONDITIONS AND SOURCE NOTES

- EXISTING GRADE TOPOGRAPHIC INFORMATION IS FROM VERMONT STATE LIDAR DATA (2014) SUPPLEMENTED BY FIELD SURVEY DATA OF THE PROJECT SITE, COLLECTED BY FEA WITH A TOTAL STATION AND A CENTIMETER GRADE TRIMBLE GPS ON 7/5/2022.
- GEOGRAPHIC DATA AND PLANS ARE REFERENCED TO THE VERMONT STATE PLANE IN US SURVEY FEET (NAVD83). ELEVATIONS ARE BASED ON NAVD88.
- PARCEL BOUNDARY DATA SHOWN ON THE PLANS ARE FROM VCGI.

LEGEND

EXISTING

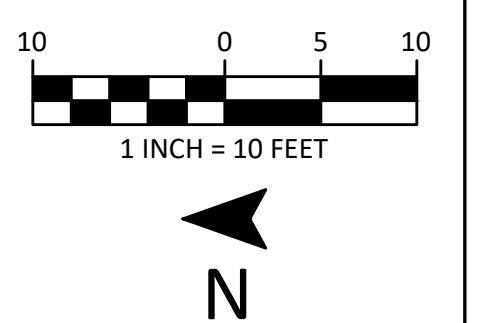
- SWALE
- - - EDGE OF PAVEMENT
- . - . - . PARCEL BOUNDARY
- FENCE
- 5-FOOT CONTOURS
- - - 1-FOOT CONTOURS



DUMMERSTON COVERED BRIDGE

Fitzgerald Environmental Associates, LLC
 164 Main Street, Suite 2
 Colchester, VT 05446
 Telephone: 802.876.7778
 www.fitzgeraldenvironmental.com

SIGNATURE		
REVISIONS		
#	DESCRIPTION	DATE



SITE PLAN - EXISTING CONDITIONS
 WCNRCO - DUMMERSTON COVERED BRIDGE GULLY STABILIZATION
 DUMMERSTON, VERMONT
 100% PLANS

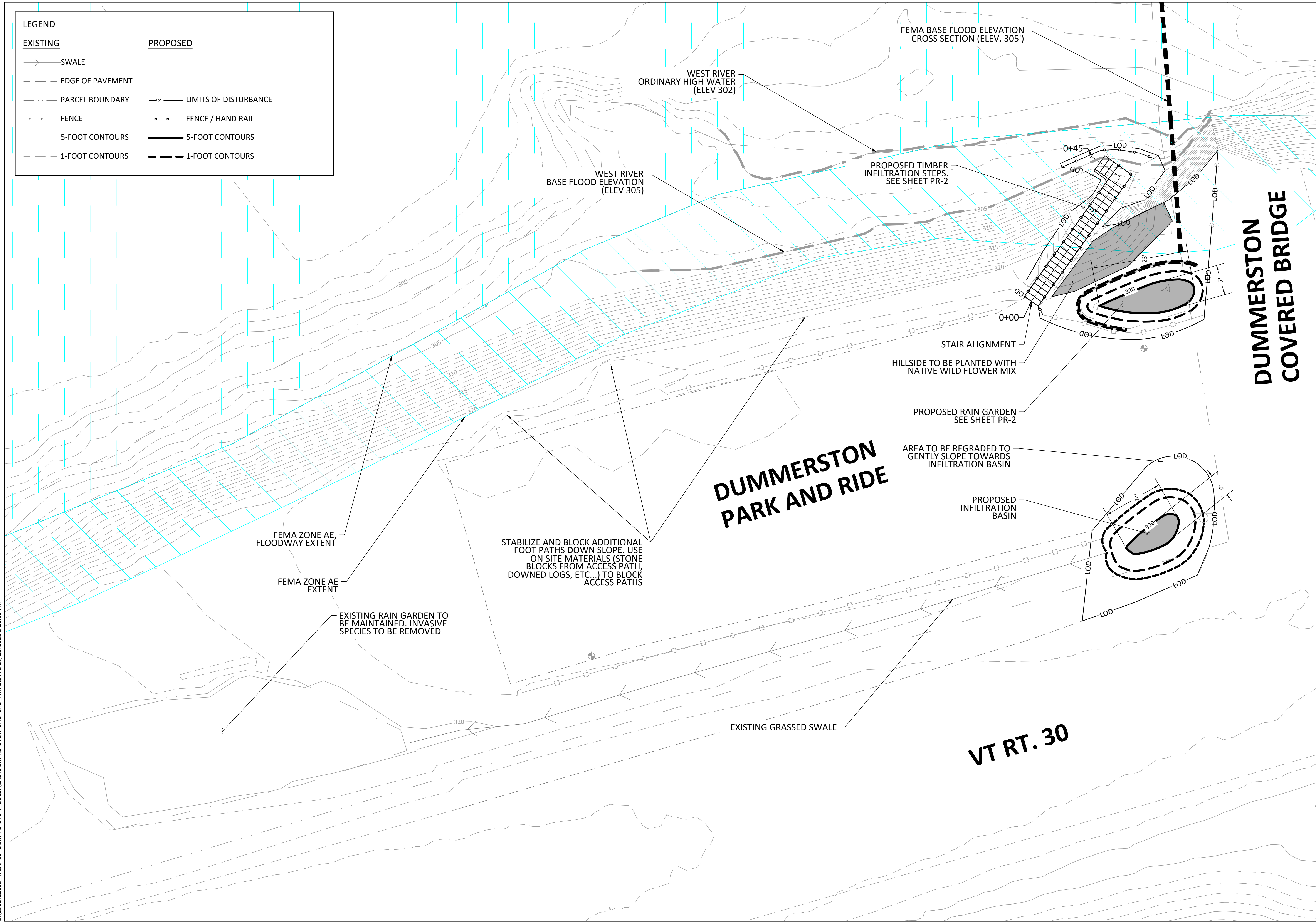
EXISTING CONDITIONS AND SOURCE NOTES:

- CONTOURS GENERATED FROM 2014 LIDAR DIGITAL ELEVATION MODEL (0.7-METER) AND ADDITIONAL TOPOGRAPHIC DATA COLLECTED BY FEAS WITH TRIMBLE CM GPS AND TOTAL STATION ON 07/05/22.
- GEOGRAPHIC DATA AND PLANS ARE REFERENCED TO THE VERMONT STATE PLANE IN UN SURVEY FEET (NAVD83). ELEVATIONS ARE BASED ON NAVD88.
- THIS MAP IS NOT A BOUNDARY SURVEY AND SHALL NOT BE USED OR CONSTRUED FOR SUCH PURPOSES.

DRAWN	JMD	CHECKED	EPF
SCALE	1" = 10'		
DATE	2023-10-23		
PROJECT NO.	22038		
SHEET NO.	1 OF 5		
SHEET NAME	EX-1		

S:\2023\22038_WCNRCO_DUMMERSTON_GULLY\CAD\DUMMERSTON_SITE_CAD_FINAL.DWG 10/23/2023 3:21:34 PM

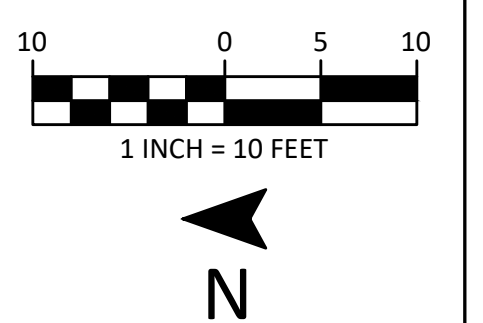
LEGEND	
EXISTING	PROPOSED
SWALE	LIMITS OF DISTURBANCE
EDGE OF PAVEMENT	FENCE / HAND RAIL
PARCEL BOUNDARY	5-FOOT CONTOURS
FENCE	1-FOOT CONTOURS
5-FOOT CONTOURS	
1-FOOT CONTOURS	



DUMMERSTON COVERED BRIDGE

Fitzgerald Environmental Associates, LLC
 164 Main Street, Suite 2
 Colchester, VT 05446
 Telephone: 802.876.7778
www.fitzgeraldenvironmental.com

SIGNATURE		
#	REVISIONS DESCRIPTION	DATE



SITE PLAN - PROPOSED CONDITIONS - OVERVIEW
 WCNPCD - DUMMERSTON COVERED BRIDGE GULLY STABILIZATION
 DUMMERSTON, VERMONT
 100% PLANS

DRAWN	JMD	CHECKED	EPF
SCALE	1" = 10'		
DATE	2023-10-23		
PROJECT NO.	22038		
SHEET NO.	2 OF 5		
SHEET NAME	PR-1		

S:\2023\22038_WCNPCD_DUMMERSTON_GULLY\CAD\DUMMERSTON_SITE_CAD_FINAL.DWG 10/23/2023 3:21:39 PM

LEGEND	
EXISTING	PROPOSED
→ SWALE	
- - - EDGE OF PAVEMENT	
- - - PARCEL BOUNDARY	
○ FENCE	○ FENCE / HAND RAIL
— 5-FOOT CONTOURS	— 5-FOOT CONTOURS
- - - 1-FOOT CONTOURS	- - - 1-FOOT CONTOURS

ADDITIONAL MATERIALS ON SHOULDERS OF PROPOSED INFILTRATION STEPS TO BE RE-GRADED AND SMOOTHED AS NECESSARY. ANY DISTURBANCE SHALL BE STABILIZED WITH SEED AND MULCH. RECP TO BE USED ON SLOPES STEEPER THAN 3H:1V

HILLSIDE ADJACENT TO TIMBER STAIRS TO BE PLANTED WITH VERMONT NATIVE WILDFLOWER & GRASS MIX FROM VERMONT WETLAND PLANT SUPPLY (OR APPROVED EQUAL) AT A RATE OF 18LB/ ACRE AND STABILIZED WITH BIODEGRADABLE ROLLED EROSION CONTROL PRODUCT

EXISTING STONE BLOCKS IN ACCESS PATH TO BE REMOVED, AND PATH TO BE GRADED AND PREPARED FOR INFILTRATION STEP INSTALLATION

WEST RIVER BASE FLOOD ELEVATION (ELEV. 305)

WEST RIVER ORDINARY HIGH WATER (ELEV. 302)

TIMBER RETAINING WALL TO BE INSTALLED UP GRADIENT OF BOTTOM STAIRS. PRESENCE OF LARGE BOULDERS OR BEDROCK MAY ALTER RETAINING WALL DESIGN

SILT FENCE TO BE INSTALLED PRIOR TO EARTH DISTURBANCE

4'X4' LANDING AND BOTTOM STEPS TO BE ANCHORED INTO GROUND USING STONE BLOCKS FROM EXISTING STEPS

INSTALL HANDRAIL DOWN BOTH SIDES OF STAIRS, AND AROUND LANDING

RAIN GARDEN TO BE PLANTED WITH NATIVE PERENNIAL SHRUBS AND FLOWERS. SEE SHEET DT-1 FOR PLANTING SCHEDULE. SIDE SLOPES TO BE 2H:1V MAX

EXISTING BERM TO BE RAISED TO ELEVATION 322' TO PREVENT WATER FROM FLOWING TOWARDS STAIRS

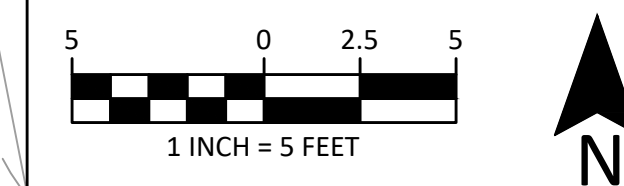
EXISTING BASIN TO BE RETROFITTED INTO RAIN GARDEN

AREA TO BE REGRADED TO DRAIN TO INFILTRATION BASIN AND STABILIZED WITH CONSERVATION SEED MIX AND MULCH

PROPOSED GRASSED SPILLWAY. ENSURE POSITIVE DRAINAGE NORTH OUT OF INFILTRATION BASIN TO EXISTING GRASSED SWALE

INFILTRATION BASIN TO BE STABILIZED WITH CONSERVATION SEED MIX AND MULCH. SIDE SLOPES TO BE 4H:1V MAX

TIMBER FENCE TO BE CONNECTED BETWEEN EXISTING FENCE AND GUARD RAIL



Fitzgerald Environmental Associates, LLC
 164 Main Street, Suite 2
 Colchester, VT 05446
 Telephone: 802.876.7778
 www.fitzgeraldenvironmental.com

SIGNATURE		
REVISIONS		
#	DESCRIPTION	DATE

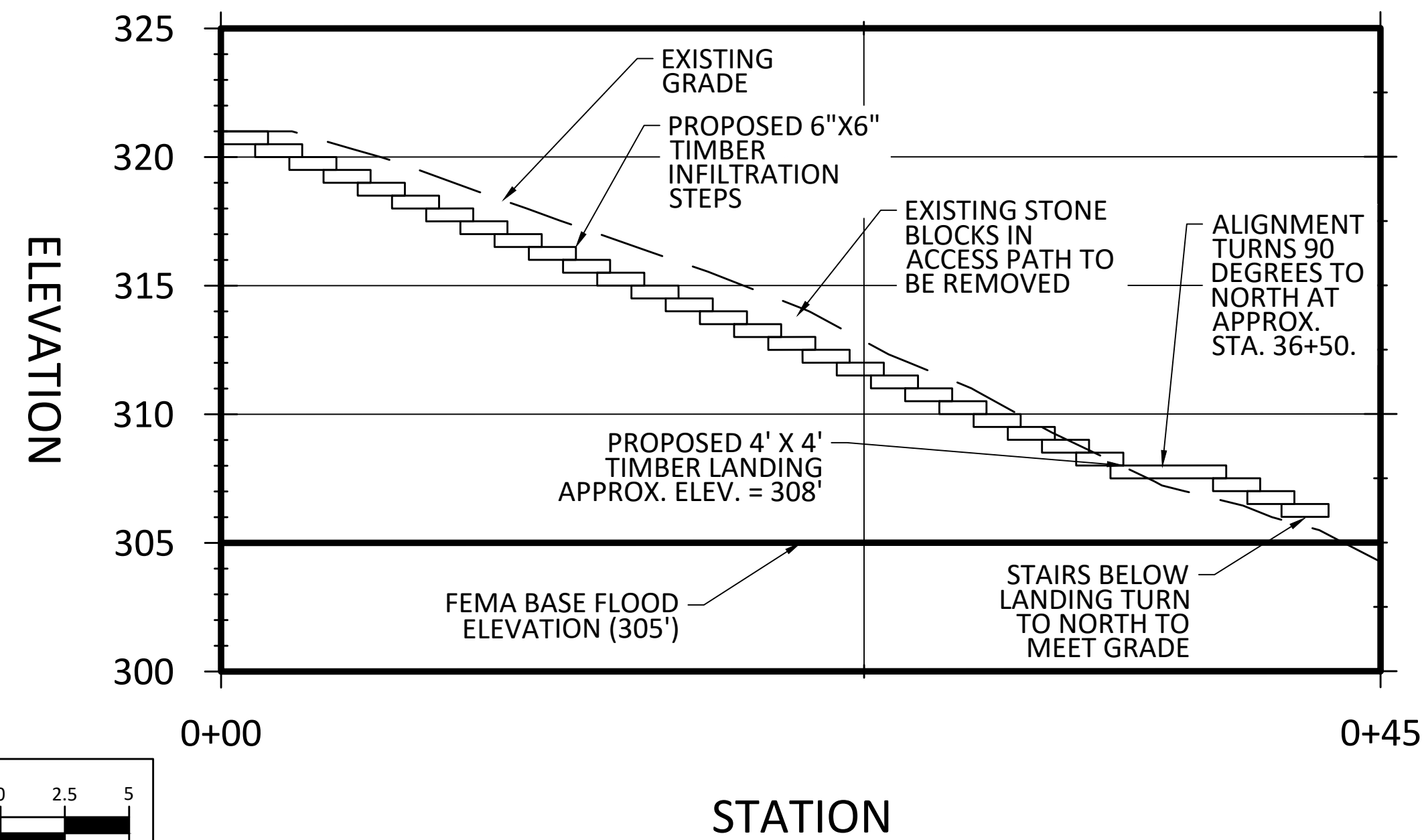
100% PLANS

SITE PLAN - PROPOSED CONDITIONS
 WCNRCO - DUMMERSTON COVERED BRIDGE GULLY STABILIZATION
 DUMMERSTON, VERMONT

DRAWN	JMD	CHECKED	EPF
SCALE	AS SHOWN		
DATE	2023-10-23		
PROJECT NO.	22038		
SHEET NO.	3 OF 5		

PR-2
 SHEET NAME

STAIR ALIGNMENT PROFILE

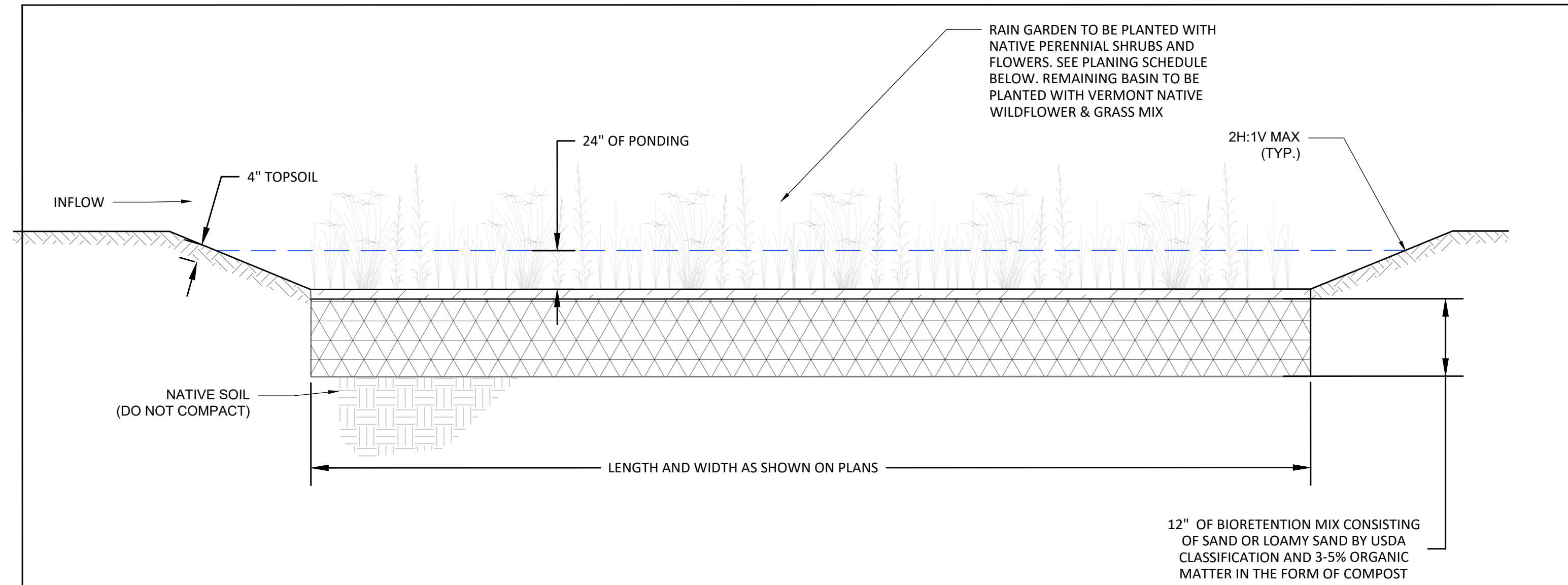


PROPOSED INFILTRATION STEP NOTES:

1. ACTUAL ELEVATIONS OF EXISTING ACCESS PATH MAY VARY DUE TO CHANGING SURFACE CONDITIONS SINCE THE TIME OF SURVEY.
2. EXISTING MATERIALS WITHIN ACCESS PATH VARY (STONE BLOCKS, GRAVEL, ETC...) AND EXACT DIMENSIONS AND DEPTHS OF EACH MATERIAL ARE UNKNOWN.
3. EXACT LAYOUT AND ELEVATIONS OF INFILTRATION STEPS TO BE DETERMINED IN THE FIELD BY CONTRACTOR. LAYOUT SHOWN ON PLAN AND PROFILE ARE A GUIDE FOR THE CONTRACTOR TO FOLLOW.
4. MINIMUM DIMENSIONS OF STEP SHALL BE ACHIEVED, AS SHOWN IN DETAIL. EXACT LENGTH OF TREAD MAY VARY TO ENSURE THE FULL SET OF STAIRS MEETS THE DESIRED FOOT PRINT AND TIE-IN ELEVATIONS.
5. EXISTING STONE BLOCKS IN CURRENT ACCESS PATH SHALL BE REMOVED AND UTILIZED AS AN ANCHORING MECHANISM ON THE 4' X 4' LANDING AND BOTTOM STEPS.
6. ONCE STONE BLOCKS HAVE BEEN REMOVED, CONTRACTOR SHALL ENSURE THAT A NON-COMPACT GRAVEL SUB BASE IS PRESENT. IF IT IS NOT, A MINIMUM OF 6" OF GRAVEL SUB BASE SHALL BE INSTALLED.
7. CONTRACTOR SHALL VERIFY THAT EACH STEP IS SOLID AND SOUND.

S:\2023\22038 - WCNRCO - DUMMERSTON GULLY\CAD\DWG\DWG\10/23/2023 3:21:44 PM

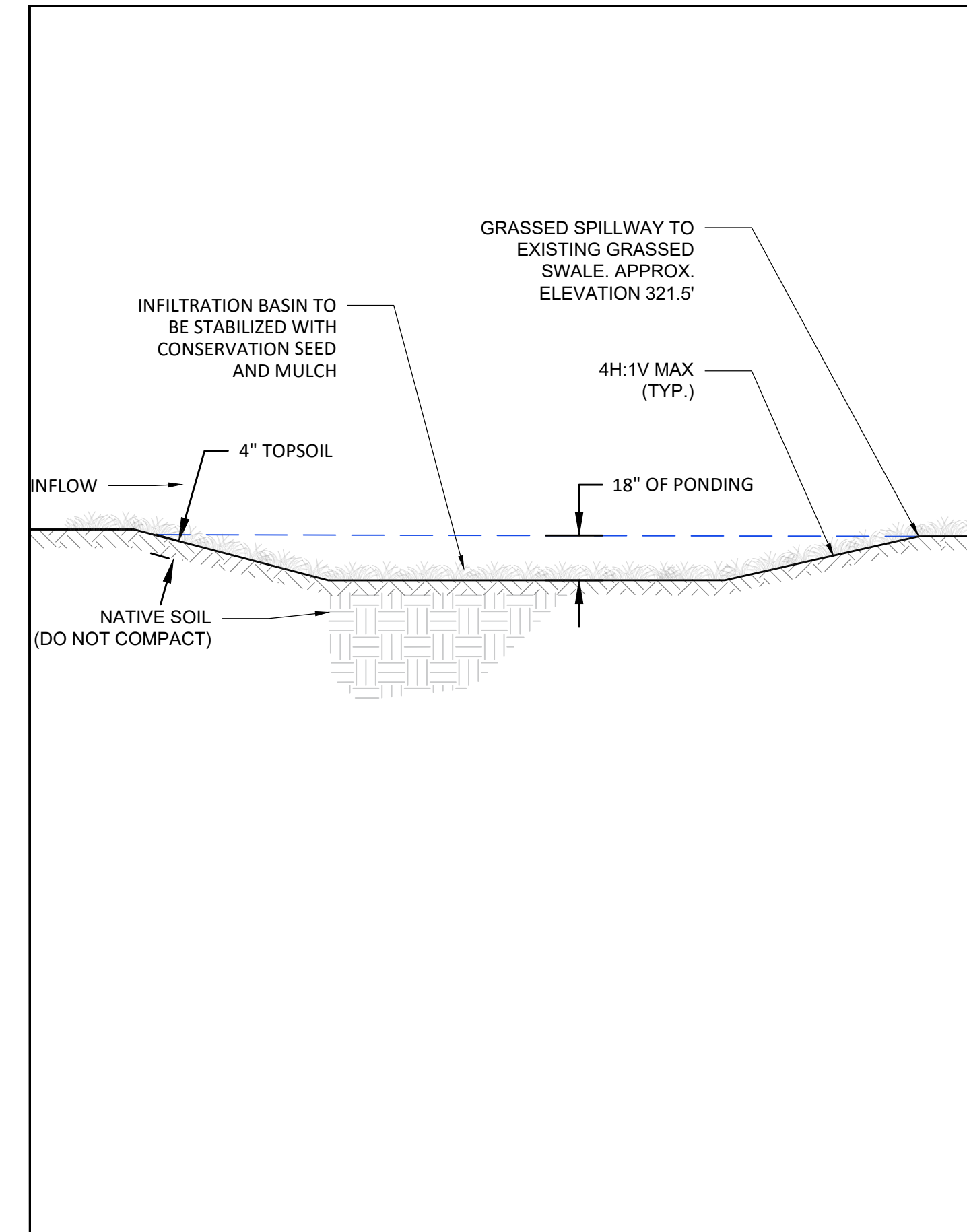




PLANTING SCHEDULE				
COMMON NAME	TAXONOMIC NAME	FORM	SIZE	QUANTITY
SILKY DOGWOOD	CORNUS AMOMUM	1 GAL CONT.	2-3 FT TALL	3
ELDERBERRY	SAMBUCUS PUBENS	1 GAL CONT.	2-3 FT TALL	2
STEEPLEBUSH	SPIRAEA TOMENTOSA	1 GAL CONT.	2-3 FT TALL	2

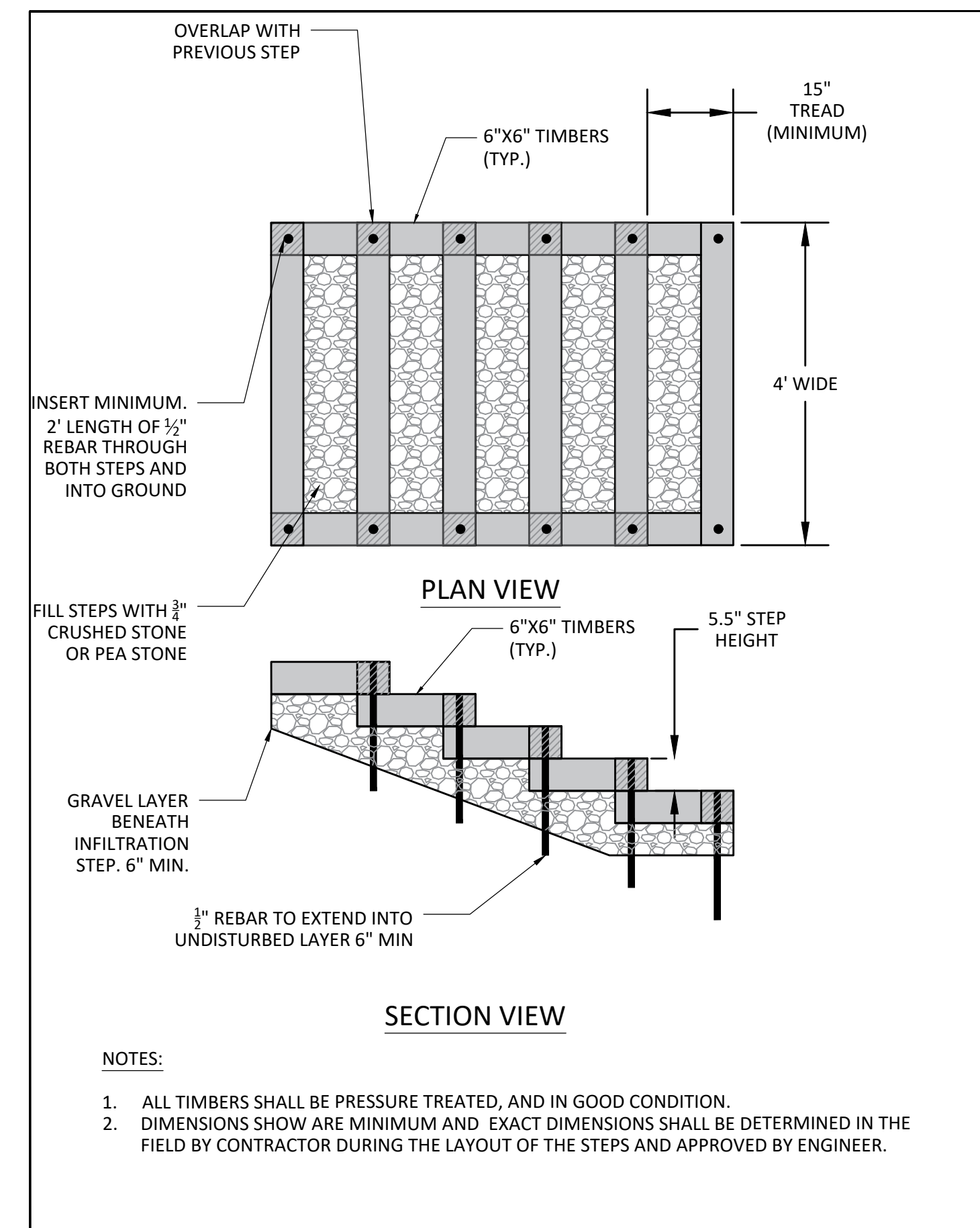
RAIN GARDEN

N.T.S.



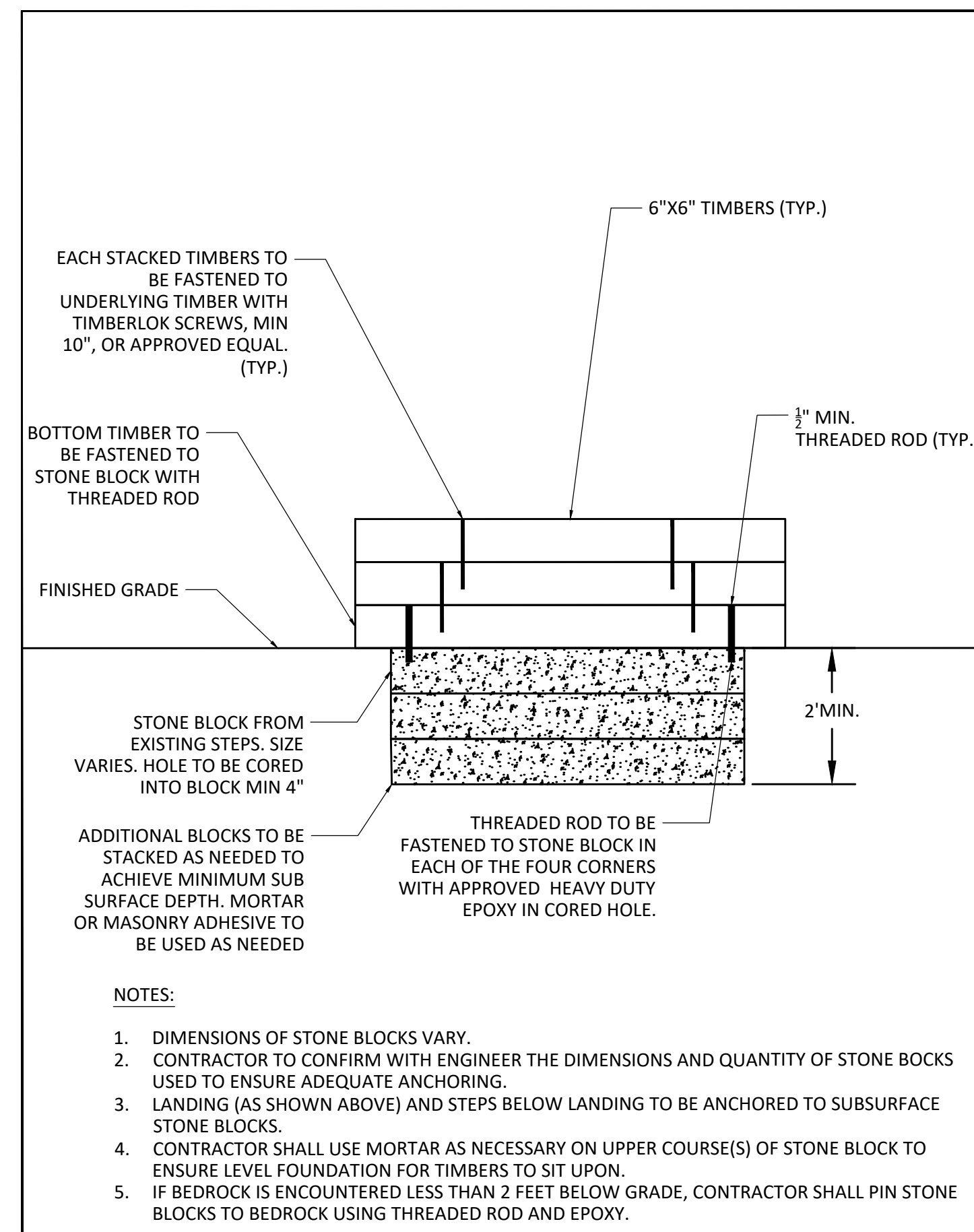
INFILTRATION BASIN

N.T.S.



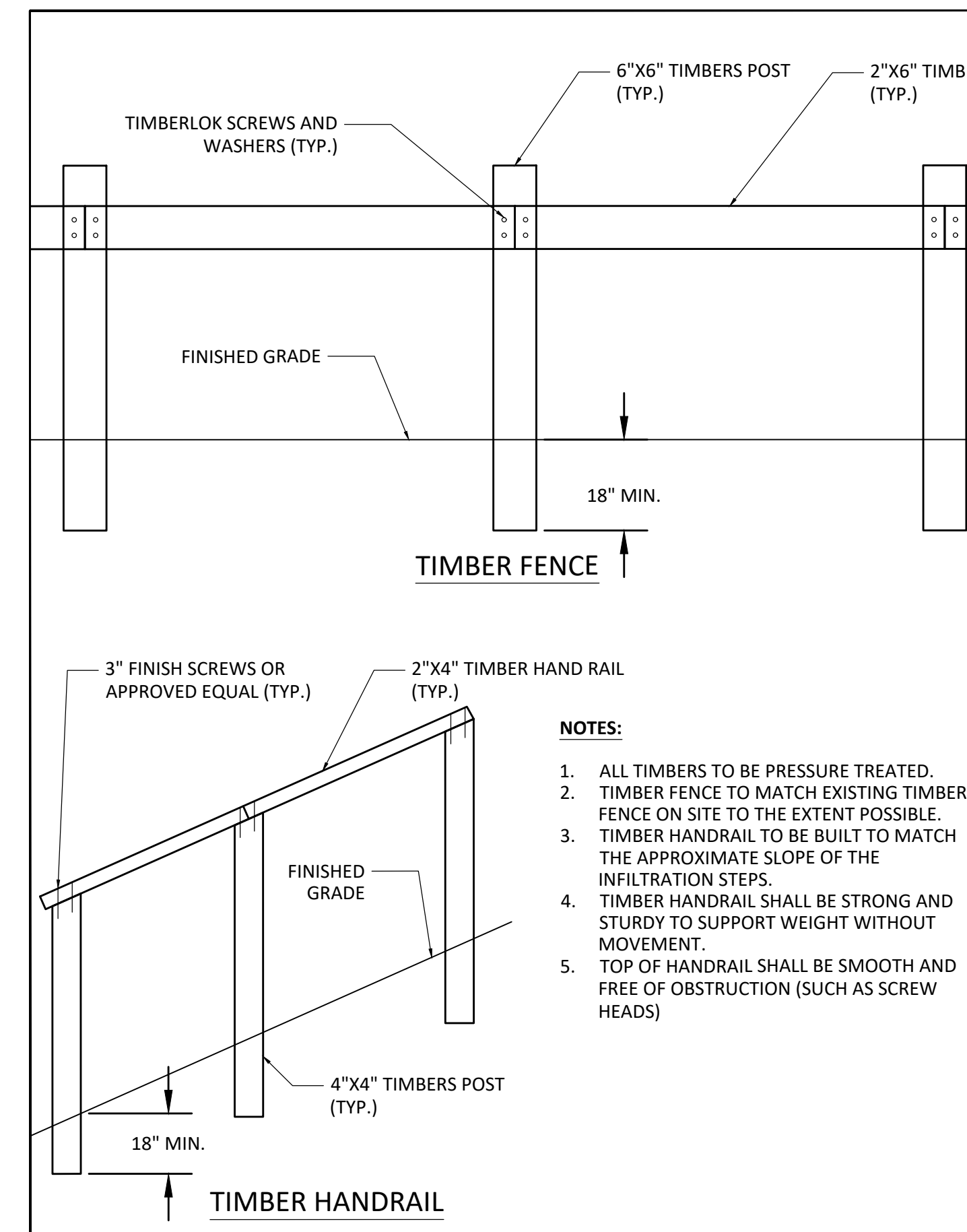
TYPICAL INFILTRATION STEP

N.T.S.



INFILTRATION STEP / LANDING ANCHORING

N.T.S.



TIMBER HANDRAIL AND FENCE

N.T.S.

SIGNATURE		
REVISIONS		
#	DESCRIPTION	DATE

CONSTRUCTION DETAILS
 WCNRC - DUMMERSTON COVERED BRIDGE GULLY STABILIZATION
 DUMMERSTON, VERMONT
 100% PLANS

DRAWN	JMD	CHECKED	EPF
SCALE	N/A		
DATE	2023-10-23		
PROJECT NO.	22038		
SHEET NO.	4 OF 5		
SHEET NAME	D-1		

Fitzgerald Environmental Associates, LLC
 164 Main Street, Suite 2
 Colchester, VT 05446
 Telephone: 802.876.7778
 www.fitzgeraldenvironmental.com

S:\2023\22038_WCNRC - DUMMERSTON_GULLY\CAD\DWG\2023_10\23\2023_10_23_3:21:49 PM

GENERAL CONSTRUCTION NOTES

1. THESE PLANS DO NOT CONSTITUTE A SURVEY AND SHALL NOT BE USED FOR THE TRANSFER OF LOTS.
2. 1-FOOT CONTOUR BASE MAP PROVIDED FITZGERALD ENVIRONMENTAL ASSOCIATES. A TOPOGRAPHIC / BATHYMETRIC SURVEY WAS COMPLETED BY FITZGERALD ENVIRONMENTAL ASSOCIATES ON JULY 5, 2022 AND INTEGRATED INTO THE EXISTING LIDAR TOPOGRAPHIC DATA. ACTUAL ELEVATIONS MAY VARY.
3. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE TECHNICAL SPECIFICATIONS FOR PROJECT.
4. IF A CONDITION OF THE TECHNICAL SPECIFICATIONS CANNOT BE MET, THE CONTRACTOR SHALL PROVIDE NOTIFICATION AND COORDINATE A MEETING WITH THE CLIENT/PROJECT CONSULTANT PRIOR TO CONSTRUCTION.
5. PRIOR TO ORDERING MATERIALS OR BREAKING GROUND, THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL CONTRACT DOCUMENTS INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, DESIGN PLANS, TECHNICAL SPECIFICATIONS AND OTHER RELATED DOCUMENTS TO VERIFY AND COORDINATE DIMENSIONS, LAYOUTS, PLACEMENT, AND APPLICABILITY. THE CONTRACTOR SHALL CONDUCT FIELD CHECKS TO VERIFY THE ACCURACY OF DIMENSIONS, TOPOGRAPHY, AND EXISTING CONDITIONS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CLIENT/PROJECT CONSULTANT OF ANY DISCREPANCIES BETWEEN THE INFORMATION SHOWN ON THESE PLANS AND THE CONDITIONS EXISTING IN THE FIELD. IF THE CONTRACTOR FAILS TO REPORT ANY DISCREPANCIES DISCOVERED TO THE ENGINEER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ERRORS WHICH MIGHT HAVE BEEN AVOIDED THEREBY. THE CONTRACTOR SHALL SUBMIT THE LIST AND QUANTITY OF MATERIALS TO ORDER FOR REVIEW PRIOR TO ORDERING.
6. THE LOCATION OF UTILITIES SHOWN ON THESE PLANS ARE NOT BASED ON "DIG SAFE" MARKINGS AND DO NOT PURPORT TO CONSTITUTE OR REPRESENT ALL UTILITIES LOCATED UPON OR ADJACENT TO THE SURVEYED PREMISES. THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CONFLICTS. ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER. THE CONTRACTOR SHALL CALL "DIG SAFE".
7. THE CONTRACTOR SHALL REPAIR/RESTORE ALL DISTURBED AREAS (ON OR OFF THE SITE) AS A DIRECT OR INDIRECT RESULT OF THE CONSTRUCTION TO THEIR ORIGINAL CONDITION AT THE COMPLETION OF CONSTRUCTION.
8. IN ADDITION TO THE REQUIREMENTS SET IN THESE PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL COMPLETE THE WORK IN ACCORDANCE WITH ALL PERMIT CONDITIONS AND ANY LOCAL PUBLIC WORKS STANDARDS, AS NECESSARY.
9. ANY DEWATERING NECESSARY FOR THE COMPLETION OF THE SITEWORK SHALL BE CONSIDERED AS PART OF THE CONTRACT AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

CONSTRUCTION SPECIFICATIONS

1. SILT FENCE, STAKED FIBER ROLL, OR OTHER APPROVED SEDIMENT CONTROL MEASURE SHALL BE INSTALLED AT THE EDGE OF THE PROPOSED GRADING (AS SHOWN IN THE PLANS) PRIOR TO DISTURBANCE.
 2. ADDITIONAL EROSION CONTROL MEASURES TO BE IMPLEMENTED AS NEEDED UNDER THE DIRECTION OF THE ENGINEER.
 3. NO TREES WITH A DIAMETER GREATER THAN 3" SHALL BE CUT WITHOUT PRIOR APPROVAL.
 4. ALL AREAS EXPOSED DURING CONSTRUCTION SHALL BE PROTECTED IN ACCORDANCE WITH THE STANDARDS PUBLISHED IN THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION'S *LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL*
 5. NO STREAM OR WETLAND IMPACTS SHALL OCCUR.
 6. EXACT LAYOUT AND ELEVATIONS OF THE INFILTRATION STEPS SHALL BE COORDINATED BETWEEN THE CONTRACTOR AND THE ENGINEER DURING THE SITE LAYOUT.
 7. EXCAVATION
 - 7.1. CONSTRUCTION SHALL OCCUR UNDER DRY OR NEARLY DRY CONDITIONS, AS FEASIBLE. WORK SHALL CEASE DURING STORM EVENTS THAT CREATE ELEVATED RUN OFF CONDITIONS TO PREVENT SEDIMENT DISCHARGE OFF OF THE PROJECT SITE.
 - 7.2. THE CONTRACTOR SHALL HAVE TARPS OR OTHER IMPERMEABLE MATERIALS TO COVER THE STEEP WORK AREA IN THE EVENT OF AN INTENSE STORM EVENT WHILE THE SLOPE IS DISTURBED.
 - 7.3. THE CONTRACTOR SHALL PROTECT EXISTING STRUCTURES AND UTILITIES FROM DAMAGE AND EXCESSIVE SETTLEMENT DURING EXCAVATION, BACKFILLING, COMPACTION, AND DEWATERING ACTIVITIES. THE CONTRACTOR SHALL REPAIR ANY SUCH DAMAGE AT THEIR OWN EXPENSE.
- NO ADDITIONAL FILL OR MATERIALS, BEYOND WHAT IS SHOWN ON THE PLANS, SHALL BE PLACED BELOW THE FEMA BASE FLOOD ELEVATION,.

MATERIAL SPECIFICATIONS

1. GRAVEL / PEA STONE
 - 1.1. MATERIAL USED TO FILL THE INFILTRATION STEPS SHALL CONSIST OF ¾" CLEAN AND WASHED GRAVEL OR EQUIVALENT CLEAN WASHED PEA STONE.
 - 1.2. STONE SHALL BE FREE OF FINES AND ORGANIC MATERIALS.
2. BIORETENTION SOIL MIX
 - 2.1. BIORETENTION MIX SHALL CONSIST OF SAND OR LOAMY SAND BY USDA CLASSIFICATION (85-88% SAND, 8-12% SILT, AND 0-2% CLAY) AND 3-5% ORGANIC MATTER IN THE FORM OF COMPOST.
3. TIMBER FOR INFILTRATION STEPS, FENCE, AND HANDRAIL
 - 3.1. ALL TIMBERS SHALL BE PRESSURE TREATED AND IN GOOD CONDITION.
4. SHRUBS AND PERENNIALS
 - 4.1. SHRUBS AND PERENNIAL PLANTS SHALL BE HEALTHY, AVAILABLE LOCALLY, AND REASONABLY FREE OF DIE-BACK, ROT, AND DISEASE. AT THE TIME OF PLANTING ALL PLANTS SHALL HAVE A ROOT SYSTEM, STEM AND BRANCH FORM THAT WILL NOT RESTRICT NORMAL GROWTH, STABILITY AND HEALTH FOR THE EXPECTED LIFE OF THE PLANT.
 - 4.2. SPECIES SHALL BE NATIVE AND BE COMPATIBLE WITH PLANT COMMUNITIES KNOWN TO GROW IN AREAS WITH SIMILAR CLIMATE, SOILS, HYDROLOGY, AND LANDSCAPE POSITIONS. UPLAND AREAS SHALL BE DOMINATED BY PLANTS WITH HYDROLOGY INDICATOR STATUS OF FAC-UPL AND WETLAND AREAS BY PLANT WITH INDICATOR STATUS OF OBL-FAC.
 - 4.3. IF THE SPECIFIED PLANTS ARE NOT READILY AVAILABLE, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO FIND A SUITABLE SUBSTITUTE.
5. GRASS SEED
 - 5.1. SEED SHALL BE FURNISHED IN NEW, CLEAN, SEALED, AND PROPERLY LABELED CONTAINERS. SEED WHICH HAS BECOME WET, MOLDY OR OTHERWISE DAMAGED SHALL NOT BE ACCEPTABLE.
 - 5.2. ALL DISTURBED AREAS (UNLESS OTHERWISE NOTED) SHALL BE SEEDED WITH A CONSERVATION MIX APPROVED BY THE ENGINEER PRIOR TO USE.
 - 5.3. HILLSIDE ADJACENT TO THE INFILTRATION STEPS AND THE BOTTOM OF THE RAIN GARDEN SHALL BE SEEDED WITH VERMONT NATIVE WILDFLOWER & GRASS MIX, PROVIDED BY VERMONT WETLAND PLANT SUPPLY, OR EQUIVALENT APPROVED BY THE ENGINEER PRIOR TO USE.
 - 5.4. IF SEEDING IS TO OCCUR AFTER OCTOBER 15TH, ADDITIONAL WINTER RYE SHALL BE USED TO HELP ESTABLISH VEGETATION AND STABILIZATION. ADDITIONAL SPRING SEEDING MAY BE REQUIRED.

6. MULCH AND EROSION CONTROL
 - 6.1. STRAW MULCH SHALL CONSIST OF MOWED, PROPERLY CURED GRASS AND LEGUMES REASONABLY FREE OF WEEDS, TWIGS, DEBRIS, OR OTHER OBJECTIONABLE MATERIAL. MULCH AT A RATE OF 2 TONS PER ACRE.
 - 6.2. AN APPROPRIATE BIODEGRADABLE ROLLED EROSION CONTROL PRODUCT (RECP) SHALL BE USED (E.G., NORTH AMERICAN GREEN S150BN OR EQUIVALENT WITH LOOSE-WEAVE NETTING) ON SLOPES IDENTIFIED ON THE PLANS (HILLSIDE ADJACENT THE STEPS, AND REGRADED SHOULDERS ALONG THE STEPS) AND ADDITIONAL SLOPES EXCEEDING 3H:1V.
 - 6.3. SILT FENCE - FENCE INSTALLED FOR SILT CONTROL SHALL BE A PREASSEMBLED WOOD POST AND FILTER FABRIC SYSTEM. FENCE SHALL BE MIRAFI, INC. ENVIROFENCE OR EQUIVALENT AS APPROVED BY DESIGNER/ENGINEER. WIDTH OF FABRIC SHALL BE 3' MINIMUM. POSTS ARE TO BE HARDWOOD OR METAL, 4.5' LONG AND SPACED 5' TO 8' ON CENTER. SILT FENCE SHALL BE KEYED INTO GROUND. SILT FENCE (OR APPROVED EQUAL) SHALL BE INSTALLED AS SHOWN ON THE PLANS PRIOR TO EARTH DISTURBANCE
7. STABILIZATION OF DISTURBED SOILS
 - 7.1. TEMPORARY STABILIZATION OF DISTURBED SOILS DURING THE PERIOD OF APRIL 15 TO OCTOBER 15 SHALL BE COMPLETED WITHIN 14 DAYS OF INITIAL DISTURBANCE. AFTER THE INITIAL DISTURBANCE PERIOD, TEMPORARY STABILIZATION SHALL BE PERFORMED ON A DAILY BASIS, EXCEPT IF WORK IS TO CONTINUE IN THE DISTURBED AREA WITHIN THE NEXT 24 HOURS AND THERE IS NO FORECAST OF PRECIPITATION FOR THE NEXT 24 HOURS, OR IF THE WORK IS OCCURRING IN A SELF-CONTAINED EXCAVATION WITH A DEPTH OF 2 FEET OR GREATER.
 - 7.2. SEED AND STRAW MULCH DISTURBED AREAS IMMEDIATELY AFTER THE COMPLETION OF RE-GRADING AND WORK ACTIVITIES. PREPARE SEEDBED AND UTILIZE SOIL AMENDMENT AS NEEDED. TRACK MULCH IN AS NEEDED TO PREVENT REMOVAL BY WIND.

OPERATION AND MAINTENANCE PLAN

INFILTRATION STEPS

- ENSURE ADEQUATE AMOUNT OF GRAVEL IS RETAINED WITHIN EACH STEP. RECOMMEND ANNUAL INSPECTION AND FOLLOWING LARGE RAIN EVENTS.
- SIDE SLOPES SHALL BE RESEED AS NECESSARY TO ENSURE A STABLE SLOPE.
- HAND RAILS AND OTHER TIMBER STRUCTURES SHALL INSPECTED ANNUALLY TO BE FREE OF OBSTRUCTIONS (SCREW HEADS, ETC...) AND STRUCTURALLY STABLE.

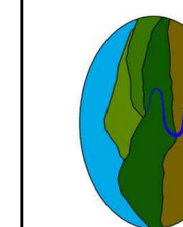
RAIN GARDEN

- PERENNIAL PLANTS SHALL BE WATERED FREQUENTLY UPON PLANTING TO ENSURE HEALTHY ROOT SYSTEM ESTABLISHMENT.
- PERENNIAL PLANTS SHALL BE MAINTAINED OVER TIME, AND THE RAIN GARDEN SHALL BE WEED TO AVOID INVASIVE SPECIES FROM SPREADING.
- ACCUMULATION OF MATERIAL (GRAVEL AND FINE SEDIMENT) SHALL BE REMOVED. RECOMMEND ANNUAL INSPECTION AND REMOVAL AS NEEDED.

INFILTRATION BASIN

- TOP SOIL APPLICATION AND RESEED AS NEEDED TO MAINTAIN DENSE GRASS COVER.
- GRASS VEGETATION WITHIN BASIN SHALL BE MOWED.
- ACCUMULATION OF MATERIAL (GRAVEL AND FINE SEDIMENT) SHALL BE REMOVED. RECOMMEND ANNUAL INSPECTION AND REMOVAL AS NEEDED.
- ANY AREAS OF EROSION OR LOOSE SEDIMENT SHOULD BE ADDRESSED TO MINIMIZE FINE SEDIMENT LOADING TO THE INFILTRATION BASIN.
- PONDING WITHIN THE BASIN SHOULD DRAIN WITHIN 24 HOURS OF A RAIN EVENT. OF DRAINING TIMES EXCEED 24 HOURS, THE UPPER SURFACE (4-6") OF SOIL SHOULD BE REMOVED AND REPLACED WITH SANDY LOAM AND SEEDED.

Fitzgerald Environmental Associates, LLC



164 Main Street, Suite 2
 Colchester, VT 05446
 Telephone: 802.876.7778
www.fitzgeraldenvironmental.com

SIGNATURE

REVISIONS		
#	DESCRIPTION	DATE

CONSTRUCTION NOTES
 WCNRCD - DUMMERSTON COVERED BRIDGE GULLY STABILIZATION
 DUMMERSTON, VERMONT
 100% PLANS

JMD DRAWN	EPF CHECKED
N/A	
2023-10-23	
PROJECT NO.	22038
SHEET NO.	5 OF 5
N-1	
SHEET NAME	