



**VTTrans Fall 2023 Transportation Alternatives (TAP)
and
Municipal Highway and Stormwater Mitigation Program Grant (MHSMP)
Combined Application**

Thoroughly read the TAP and MHSMP application guidebooks before you begin your application. It includes important program information and step-by-step instructions. Pay particular attention to the application process requirements. **Applications are due by e-mail by December 8, 2023.** Please e-mail the completed application to: Ross.gouin@vermont.gov and Scott.robertson@vermont.gov.

<u>Depot Road Box Culvert</u> (Project Name/Title)	<u>802-348-7949</u> (Phone)
<u>Jay Wilson</u> (Municipality contact person responsible for the management of this project)	<u>newfanegarage@newfanevt.com</u> (e-mail address)
<u>Newfane</u> (Town)	<u>\$ 59,200</u> Amount of Federal Funds requested (no more than 80% of the project cost estimate).
<u>05345</u> (Zip Code)	<u>14,800</u> Amount of Local Match. Example: Federal Award = \$600,000 (80% of total) Local Match = \$150,000 (20% of total) Total Project Cost = \$750,000 (100% of the total)
<u>PO Box 36</u> (Mailing Address)	

County: Windham

Town/Village/City: Williamsville

Specific location, street, or road: Depot Road

Regional Planning Commission: Windham Regional Commission

If a linear project, what is the length in feet? No. It's a box culvert

Is the project on or intersecting to a State maintained highway? Yes No

- Note: If yes, be sure to include documentation that you have notified the VTTrans District Transportation Administrator of the intent to apply for TA funding and have provided them with a brief (one paragraph) description of the proposed project.*

Project type being applied for: **Scoping** **Design/Construction**

The municipality understands that a typical construction project utilizing TAP or MHSMP Program funds will take roughly three years (min.) in the Design and ROW phases prior to going to construction (as pointed out in the TAP and MHSMP Application Guides)? Yes No

Does this project have a previously completed scoping or feasibility study? Yes No

Note:

Attach a map(s) of the project area and clearly show the limits of the project as well as surrounding benefits from the proposed improvement. If the project is within or adjacent to a designated downtown, village or growth center, clearly indicate the relationship of the proposed project to the boundary of the designated area. Color photos of the area are also recommended.

Fiscal Information:

Accounting System Automated Manual Combination

SAM Unique Identifier # DFR5CFXR7M5

Fiscal Year End Month June

Property Ownership:

If the proposed project is on private property that will need to be acquired by the Municipality through purchase, easement, or eminent domain (includes temporary construction rights) in accordance with the "Uniform Act", then the municipality is committed to exercising its right of **eminent domain** to acquire the rights to construct the project if necessary. Yes No

Funding:

Does this project already have existing funding? If so, please describe. Yes No
TAP Grant

Please note that existing projects will not be considered for additional funding without a current NEPA clearance and ROW clearance. Please provide date of clearances below:
NEPA was 11/8/22 and ROW was 10/21/22

Will you accept an award less than you applied for? Yes No

- If yes, please indicate whether local funds will be used to make up the shortfall, or if the project scope will be reduced. If the project scope is to be reduced, describe what part of the project (please be specific) you would accept partial funding for.
The project came in higher than the original estimate we would have to pull the money from another project to cover the overage.

A support letter from the governing body of the applicant municipality or organization and an acknowledgement and source of the local match and commitment to future maintenance responsibility for construction projects is required (must be dated within 1 year of the application). Is a letter of support attached?

Yes No

Regional Planning Commission Letter of Support:

In order to apply, the project must have a letter of support from the regional planning commission. Is a letter of support attached?

Yes No

PLEASE NOTE: If this application is for salt or sand shed funding, the applicant must read and understand the ***Municipal Assistance Section Salt Shed Application Guide***. All of the following scoring questions below must thoroughly convey an understanding of the salt and sand guidance provided.

Application Scoring Criteria:

- 1. Please give a brief description of the project (be sure to indicate the primary facility type being applied for and be concise).**

(10 points max.)

This project is to replace a 24" x45' steel corrugated culvert that has failed on Depot Road in Newfane. Since 2017 this culvert has not been able to handle the water and has overtopped the road 5 times causing damage each time. The state recommends replacing this culvert with a concrete box culvert.

- 2. What is the feasibility of this project? Feasibility (or Scoping) study applications will not be scored on this criterion. Also, please describe the extent of project development to date.**

(10 points max.)

The bid has been awarded and construction is expected to begin in early 2024. The increased cost of the project from our initial estimates exceeded the funding we have previously received.

- 3. Does this project address a need identified in a local or regional planning document? If so, please describe.**

(5 points max.)

In the Windham Regional Plan (pg. 32) it references "to minimize the effects of erosion, sedimentation and other sources of pollution."

- 4. Does this project:**

- A. Benefit a State Designated Center per the link below (i.e., downtowns, villages, or neighborhood growth centers recognized by the Vermont Department of Economic, Housing and Community Development?)**

Not applicable for Environmental Mitigation Categories (5 points max.)

<http://maps.vermont.gov/ACCD/PlanningAtlas/index.html?viewer=PlanningAtlas>

No

- B. Benefit mobility for disadvantaged populations to include elderly, disabled, minorities, and low-income residents. Please describe this impact (if applicable) in detail. Supporting documentation, including recent data must be included.**

Not applicable for Environmental Mitigation Categories (10 points max.)

No

5. Provide a project cost estimate below (project costs below include both federal dollars and local dollars). Projects will be scored based on whether the cost appears realistic for the size and scope of the project. For scoping studies, use PE and Local Project Management lines only.

Note: If you are applying for additional funds for an existing project, show the amount being requested for this grant in the PE, ROW, Construction, Construction Engineering, and Municipal Project Management rows below. Also, be clear regarding total project cost and other funding amounts and sources in the additional funding comments box below. (10 points max.)

Preliminary Engineering (PE) (Engineering, Surveying, Permitting)	\$ 20,740
Right-of-way / Acquisition (ROW) (appraisals, land acquisition and legal fees)	\$ 3,004
Construction (construction costs with reasonable contingency)	\$ 211,268
Construction Engineering (cost to provide inspection during construction)	\$ 39,000
Municipal Project Management Costs (minimum of 10% of total PE, ROW and Construction Phases).	\$ 0
Total Project Cost	\$ 274,012

Addition Funding Comments: (ex. Total and additional funding for existing projects)

Total project cost	\$274,012	
TAP TA18(5) MLA	200,000	Grant Agreement Dated 4/9/18
Original Expected		
Funding by Town	40,000	20% of grant MLA
Expected additional		
Funding by town	74,012	Additional funds for overruns @100% local fiunding
Current expected		
Funding by Town	114,012	Original match plus overrun
Current expected		
Funding by State/Federal	160,000	80% of 4/9/18 MLA

6. Select the eligibility category below (A, B, C or D) that best fits your project and answer the corresponding questions for that category (choose only one category). 10 bonus points will be awarded to projects that are primarily Bicycle or Pedestrian facilities.

A. Bicycle and Pedestrian Facilities (includes Safe Routes for Non-Drivers and Conversion of abandoned railroad corridors.

(i) Will the project contribute to a system of pedestrian and/or bicycle facilities? **(10 points max.)**

No

(ii) Will the project provide access to likely generators of pedestrian and/or bicyclist activity? **(10 points max.)**

No

(iii) Will the project address a known, documented safety concern? **(10 points max.)**

Because of all the flooding in the last 5 years the road became undermined and had to be temporarily repaired to keep it open to traffic.

B. Community Improvement Activities:

- i. Explain how the project improves the economic wellbeing of the community and/or provide a benefit to state tourism? **(10 points max.)**

The Depot Road is a major travel corridor to the Mount Snow/ Dover area.

- ii. Describe the anticipated impact to the public; degree of visibility, public exposure and/or public use. **(10 points max.)**

We generally shut down the road when the water overflows the pavement for safety reasons, this project should eliminate this problem.

- iii. Answer only one of the following based on the type of project:

- a) Construction of turnouts, overlooks, and viewing areas as related to scenic or historic sites.

To what extent will the project provide a view of a highly unique and scenic area?

- b) **(10 points max.)**

[Click here to enter text.](#)

- c) Preservation or rehabilitation of historic transportation facilities. *Describe the historic significance of the historic transportation facility and the importance of the facility to the state.* **(10 points max.)**

[Click here to enter text.](#)

- d) Archeological planning and research related to impacts from a transportation project.

Describe the associated transportation project and benefit of the proposed activities.

(10 points max.)

[Click here to enter text.](#)

- e) Vegetation management in transportation rights of way to improve roadway safety, prevent invasive species, and provide erosion control. *Describe the extent of the current problem and the impact on the site and surrounding area.* **(10 points max.)**

The current culvert is perched and has caused significant downstream erosion, the new box culvert will address this.

**C. Environmental Mitigation Activity Related to Stormwater and Highways
(Including Salt and Sand Sheds)**

- i. Please describe how this application provides environmental mitigation relating to stormwater and highways. **(10 points max.)**
There is significant erosion downstream from the culvert, this water and sediment ends up in the Rock River
- ii. What information or data is provided to substantiate the current stormwater problem and associated environmental impacts? **(10 points max.)**
The culvert is in a hydrologically connected segment due to its proximity to the Rock River. (Segment # 15806). This project is addressing the MRGP requirements, and the stormwater impacts on water quality.
- iii. What substantiating data or information is provided to show that the proposed application is an effective and maintainable solution to the problem? **(10 points max.)**
The design of the box culvert is such that the water flow will be spread out and moving slower to eliminate channeling and the downstream erosion. The new box will be built into the stream channel and not perched like the existing culvert.

D. Environmental Mitigation Activity Related to Wildlife

- i. Please describe how this application will reduce vehicle-caused wildlife mortality or will restore and maintain connectivity among terrestrial or aquatic habitats. **(10 points max.)**
The existing culvert is perched so no aquatic creatures can make it up the stream. The new box will make a good passage.
- ii. What information or data is provided to substantiate the current problem and associated environmental impacts? **(10 points max.)**
N/A
- iii. What substantiating data or information is provided to show that the proposed application is an effective and manageable solution to the problem? **(10 points max.)**
N/A



TOWN OF NEWFANE
OFFICE OF THE SELECTBOARD
802-365-7772 - Ext. 4
tnewfane@newfanevt.com
P.O. Box 36
Newfane, Vermont 05345

December 4, 2023

Transportation Alternatives Program
Scott Robertson, P.E.
VTrans Municipal Assistance Bureau
802-793-2395
Scott.robertson@vermont.gov

To Whom It May Concern;

On behalf of the Newfane Selectboard; we are in support of the grant application for the Transportation Alternatives Program grant. This project is important to the Town of Newfane to help with funding to replace the Depot Road Box culvert.

The Town of Newfane is willing to do any maintenance that is needed as part of this project now and in the future.

Please contact us for any additional information that you might need in assessing our request.

Sincerely,

Angela E. Litchfield, Chair
Newfane Selectboard



December 4th, 2023

Mr. Scott Robertson
Transportation Alternatives Program Manager
VT Agency of Transportation
Highway Division
Municipal Assistance Bureau
219 North Main Street
Barre, VT 05641

Dear Scott:

On behalf of the Windham Regional Commission I am writing in support of the application by the Town of Newfane for additional funding for TAP TA18 (5) box culvert project through the VTrans Transportation Alternatives Program. This additional funding will allow the town to move forward with construction on the previously funded grant to install a box culvert on an unnamed tributary of the Rock River where it crosses Depot Road. This project will improve storm water infiltration, better accommodate high-water events and improve aquatic animal passage. The existing culvert does not meet VTrans Hydraulic Manual standards nor State stream equilibrium standards for bankfull width. Increases in culvert, materials and construction costs since the grant was originally awarded have necessitated additional funding for the town to move forward with construction on the project.

The application is supported by the Windham Regional Plan, readopted June 2021 including the following provisions:

1. Regional Goals: To maintain and improve the quality of air, water, wildlife and land resources in the region. (pg. 6)
2. To provide for thoughtful and efficient use of the region's natural resources, including the prevention of surface water and groundwater pollution, the protection of fragile natural habitats and endangered or threatened species, the avoidance of agricultural and other land use practices that lead to soil erosion, the management of woodlands on a sustainable basis, and the sensitive treatment of scenic resources. (pg. 26)

[Type here]

3. To plan for, finance, and provide an efficient system of public facilities and services (such as schools, water and wastewater facilities, highways and bridges) to meet future local, regional, and state needs. (pg. 6)
4. Natural Resources Policy: Maintain water flows in streams at levels that support a full range of in-stream uses and values. (pg. 32)
5. Maintain and restore the chemical, biological, and physical quality of the region's surface water per the objective in State water regulations. (pg. 32)
6. Maintain watercourses, lakes, ponds, wetlands, and vernal pools consistent with State regulations and the highest precedent established by the District Environmental Commission and State Environmental Court in order to protect shorelines, to minimize effects of erosion, sedimentation and other sources of pollution, and to maintain scenic, recreational, and habitat values. (pg. 32)

The Rock River is an important tributary in the West River watershed, one of the largest and most important tributaries of the Connecticut River in Southeastern Vermont. Disturbances in the upper course of the watershed could pose water quality and storm water infiltration challenges for communities downstream and compromise the health of the Rock River and its place in the ecology of the Region. Ensuring that upper reach tributaries can flow as naturally as possible is essential. We encourage the agency to fund this application.

Sincerely,

A handwritten signature in black ink, appearing to read 'C. Bratton', written over a horizontal line.

Colin Bratton,
Transportation Planning Program Coordinator
Windham Regional Commission




Project site

DEPOT RD

Town garage

Depot Rd Box Culvert

0  100 Feet

DEPOT ROAD (CLASS 2 TOWN HIGHWAY) BOX CULVERT REPLACEMENT TAP TA18(5)

FOR THE TOWN OF NEWFANE NEWFANE, VERMONT JANUARY 11, 2023

SHEET SCHEDULE

- G001 - COVER
- G002 - NOTES / LEGEND
- C001 - QUANTITIES SHEET
- C002 - EXISTING CONDITIONS PLAN & PROFILES
- C003 - PROPOSED SITE PLAN & PROFILES
- C004 - CULVERT DETAILS
- C005 - ENVIRONMENTAL IMPACTS PLAN
- C006 - TRAFFIC CONTROL PLAN
- C007 - ROW PLAN
- C008 - ROW DETAIL SHEET
- C009 - EPSC MEASURES AND DETAILS

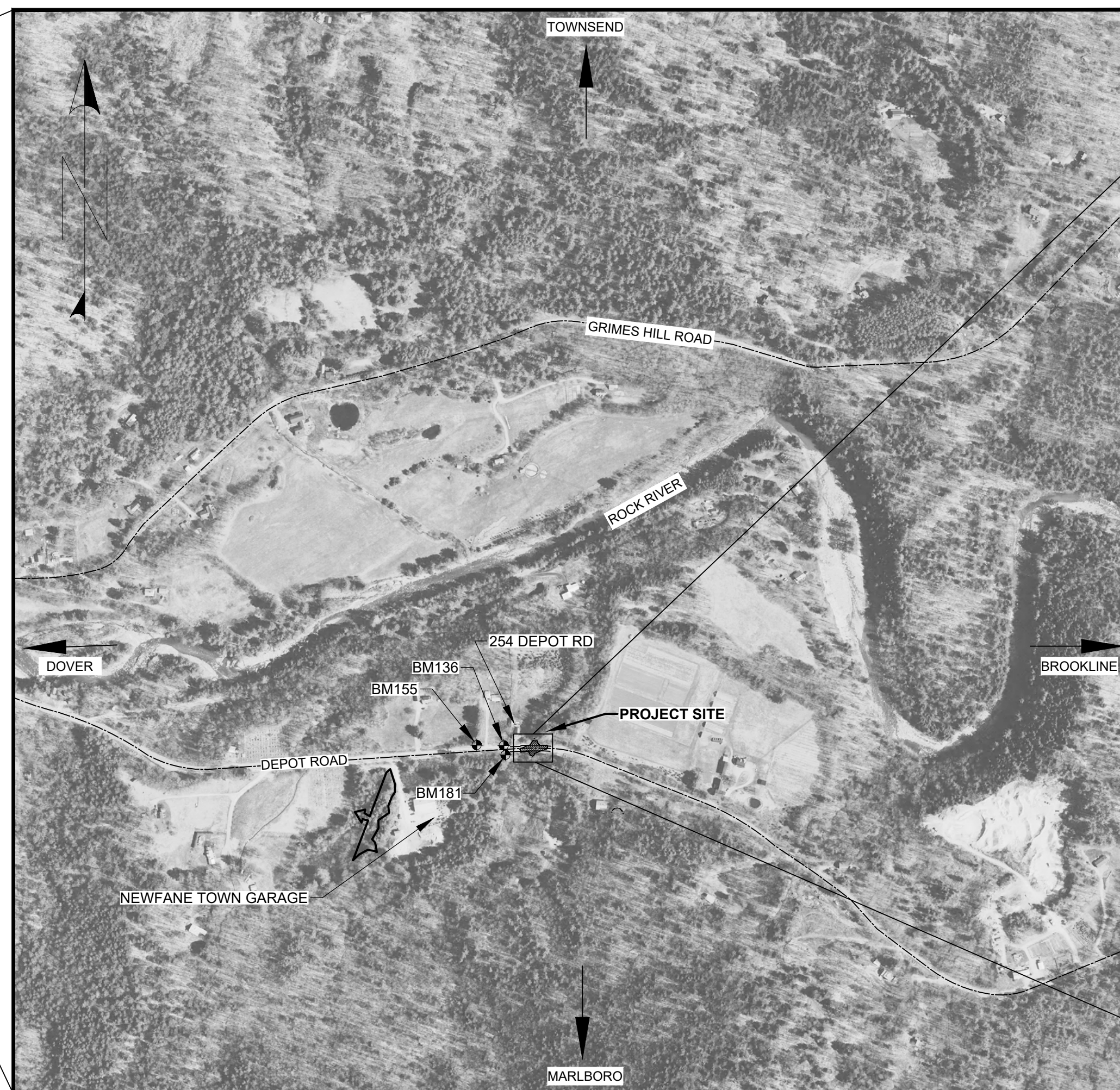
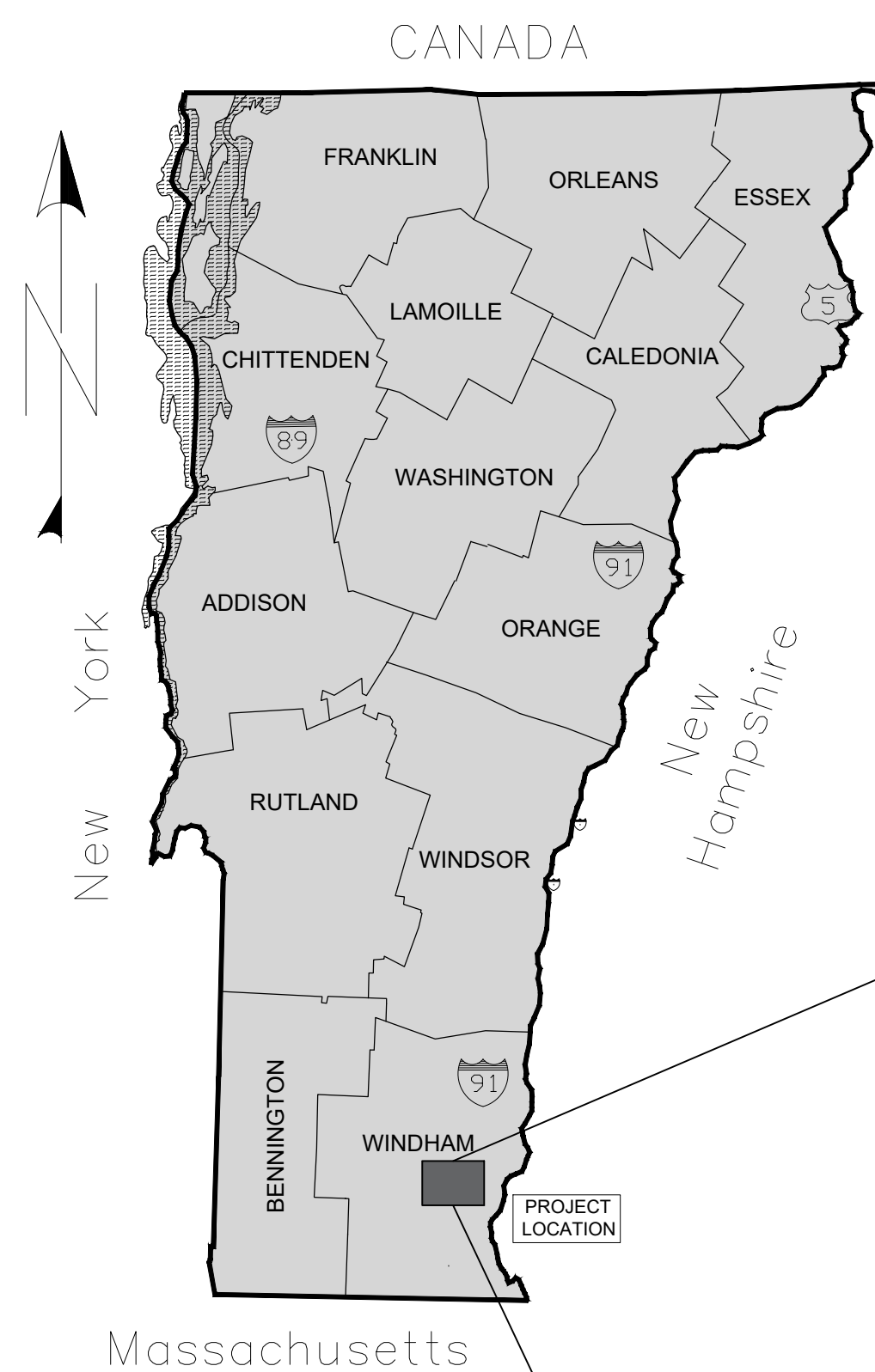
PROJECT LOCATION: LOCATED IN THE COUNTY OF WINDHAM, TOWN OF NEWFANE, ON DEPOT ROAD, APPROXIMATELY 1.3 MILES EAST OF RT 30.

PROJECT DESCRIPTION: THE REPLACEMENT OF THE EXISTING CORRUGATED METAL PIPE CULVERT WITH A CONCRETE BOX CULVERT ALONG WITH RELATED ROADWAY WORK.

LENGTH OF STRUCTURE: 50 FEET
LENGTH OF PROJECT: 127 FEET

VTRANS STANDARD SHEETS

SHEET#	TITLE	DATE
A-76	STANDARDS FOR TOWN & DEVELOPMENT ROADS	3-3-03
E-1	TREE PLANTING	7-11-17
E-2	SHRUB PLANTING	7-11-17
E-3	PERENNIAL GROUND COVERS AND VINES	7-11-17
E-10	ROLLED EROSION CONTROL PRODUCT, TYPE 1	4-07-20
E-11	CHECK DAM, TYPE I	4-07-20
E-12	STABILIZED CONSTRUCTION ENTRANCE	4-07-20
E-15	SILT FENCE	4-07-20
G-1	STEEL BEAM GUARDRAIL WITH STEEL POSTS	3-10-17
G-19	GENERIC PLANS FOR GUARDRAIL END TERMINALS	10-02-18
T-1	TRAFFIC CONTROL GENERAL NOTES	4-25-16
T-10	CONVENTIONAL ROADS CONSTRUCTION APPROACH SIGNING	8-6-12



LOCATION MAP
1" = 500'



PROJECT SITE
1" = 20'

PROJECT COORDINATION NOTE:
THIS PROJECT SHALL BE COORDINATED WITH JAY WILSON, NEWFANE ROAD FOREMAN. ALL IN STREAM WORK FOR THIS PROJECT MUST BE DONE BETWEEN JULY 1 AND OCTOBER 1.

DETOUR NOTE:
DETOUR SIGNS PLACED WITHIN VT30 ROW WILL REQUIRE STATE HIGHWAY ACCESS WORK PERMIT (19 VSA 1111), SECTION 1111.

TRAFFIC CONTROL GENERAL NOTE:
(FROM VTRANS TRANSPORTATION DATA MANAGEMENT SYSTEM (2018))

AADT: 1366
EB: 680
WB: 686

SPEED
40MPH

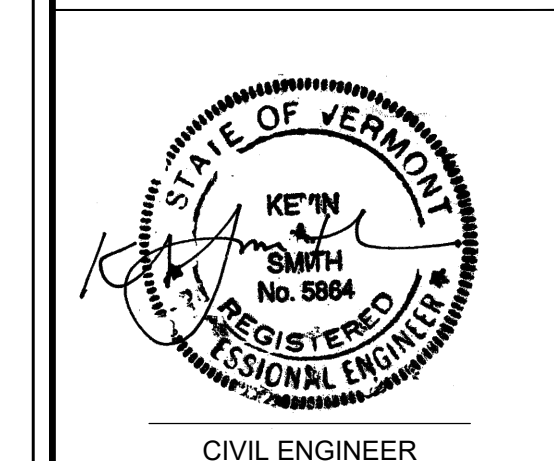
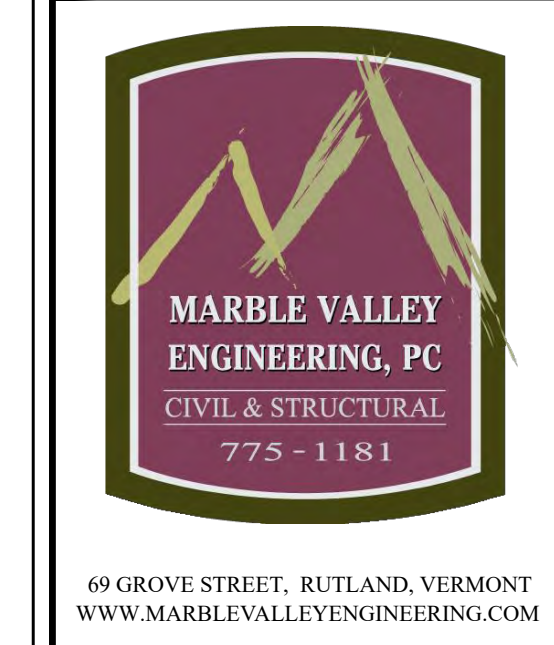
PAVING CRITERIA
PAVING MIX SHALL BE 58-28 TYPES IIIS & IVS
QUALITY ASSURANCE PROGRAM LEVEL: 2

BENCHMARKS
(SURVEY DATUM VT NAD83)
DATUM BASED ON GPS

PT#	NORTHING	EASTING	ELEV	DESCRIPTION
136	162619.6633	1596393.8967	546.82	SPIKE IN POLE
155	162621.4308	156263.7067	550.29	IPF TO GRADE
181	162574.7244	1596401.3703	547.49	IRF TO GRADE

THESE PLANS ARE TO BE USED IN CONJUNCTION WITH VAOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2018 EDITION, SUBSEQUENT UPDATED SPECIFICATIONS GSB-1816 DATED OCTOBER 25, 2022, AND BID DOCUMENTS DATED JANUARY 11, 2023 INCLUDING SPECIAL PROVISIONS AND PROJECT PERMITS.

REV.	DESCRIPTION	BY	DATE



DEPOT ROAD CLASS II BOX CULVERT REPLACEMENT
TAP TA18(5)
NEWFANE, VERMONT
COVER

PROJECT NO.: M1142
DRAWN BY: REW
SCALE: AS NOTED
DATE: JANUARY 11, 2023
SHEET: G001

COPYRIGHT © 2022 MARBLE VALLEY ENGINEERING, PC
ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT OR
UTILIZED IN ANY FORM WITHOUT PRIOR WRITTEN PERMISSION FROM MARBLE VALLEY ENGINEERING, PC

ABBREVIATIONS

ABS - ACRYLONITRILE BUTADIENE STYRENE	K - RATE OF CURVATURE
AC - ASBESTOS CEMENT	L - LONG
ACCGMP - ASPHALT COATED CORRUGATED GALVANIZED METAL PIPE	LAT - LATERAL
A.D. - ALGEBRAIC DIFFERENCE	LF - LINEAR FEET
ALUM - ALUMINUM	LOC - LOCATION
ANR - AGENCY OF NATURAL RESOURCES	LOD - LIMITS OF DISTURBANCE
APPROX - APPROXIMATE	LP - LIGHT POLE or LOWEST POINT
ARMH - AIR RELEASE MANHOLE	LR - LONG RADIUS
ASPH - ASPHALT	LWL - LOW WATER LEVEL
@ - AT	MATL - MATERIAL
AVE - AVENUE	MAX - MAXIMUM
AWWA - AMERICAN WATER WORKS ASSOCIATION	MECH - MECHANICAL
BF - BARRIER FENCE	MFR - MANUFACTURER
BIT - BITUMINOUS	MH - MANHOLE
BLDG - BUILDING	MIN - MINIMUM
BLS - BELOW LAND SURFACE	MJ - MECHANICAL JOINT
BM - BENCHMARK	MM - MARBLE MONUMENT
BOC - BOTTOM OF CURB	N - NORTH
BOF - BOTTOM OF FOOTING	N/F - NOW OR FORMERLY
BOS - BOTTOM OF SLAB	NIC - NOT IN CONTRACT
BOTT - BOTTOM	NLTD - NO LEDGE TO DEPTH
BP - BEGINNING POINT	NO. - NUMBER
BVCE - BEGINNING VERTICAL CURVE ELEVATION	NPT - NATIONAL PIPE THREAD
BVCS - BEGINNING VERTICAL CURVE STATION	NRCS - NATURAL RESOURCES CONSERVATION SERVICE
CB - CATCH BASIN	NST - NATIONAL STANDARD THREAD
CF - CUBIC FEET	NTS - NOT TO SCALE
CFS - CUBIC FEET PER SECOND	NW - NO WATER (NOT SERVICED BY EXISTING WATER SYSTEM)
CGMP - CORRUGATED GALVANIZED METAL PIPE	NWTD - NO WATER TO DEPTH
CHK V - CHECK VALVE	OC - ON CENTER
CI - CAST IRON	OCEW - ON CENTER EACH WAY
CL - CENTERLINE	OD - OUTSIDE DIAMETER
CL2 - CHLORINE	O.F. - OUTER FACE
CLSM - CONTROLLED LOW STRENGTH MATERIAL	OPP - OPPOSITE
CM - CONCRETE MARKER	OSHA - OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION
CMP - CORRUGATED METAL PIPE	PC - POINT OF CURVATURE
C/O - CLEANOUT	PCC - POINT OF COMPOUND CURVATURE
COMP - COMPRESSION	PE - POLYETHYLENE or PLAIN END
CONC - CONCRETE	PERF. - PERFORATED
CONN - CONNECT or CONNECTION	PL - PROPERTY LINE
CONST - CONSTRUCTION	PP - POWER POLE
CONT - CONTINUOUS or CONTINUATION	PPM - PARTS PER MILLION
CPP - CORRUGATED PLASTIC PIPE	PRESS - PRESSURE
CRNR - CORNER	PROP - PROPOSED
CS - CURB STOP	PS - PUMP STATION
CTR - CONTRACTOR	PSF - POUNDS PER SQUARE FOOT
CTS - COPPER TUBE SIZE	PSI - POUNDS PER SQUARE INCH
X-ING - CROSSING	PT - POINT OF TANGENCY
CU - COPPER	PVC - POLYVINYL CHLORIDE
CULV - CULVERT	PVI - POINT OF VERTICAL INTERSECTION
D - DEPTH	PVMT - PAVEMENT
DET - DETAIL	R - RADIUS
DI - DUCTILE IRON	RCP - REINFORCED CONCRETE PIPE
DIA or Ø - DIAMETER	RD - ROAD
DICL - DUCTILE IRON CEMENT LINED	RED - REDUCER
DIM. - DIMENSION	REINF - REINFORCING or REINFORCED
DISCH - DISCHARGE	REQD - REQUIRED
DIV - DIVISION	RESTR - RESTRAINED
DR - DRAIN or DRIVE	RET - RETAINER or RETAINING
E - EAST	RMF - REDOXIMORPHIC FEATURES (FORMERLY MOTTLES)
ECC - ECCENTRIC	RMJ - RESTRAINED MECHANICAL JOINT
EF - EACH FACE	RT - RIGHT
EG - EXISTING GROUND	RTE - ROUTE
ELEC - ELECTRIC or ELECTRICAL	ROW - RIGHT-OF-WAY
EL or ELEV - ELEVATION	RR - RAILROAD
ELL - ELBOW	S - SOUTH
ENGR - ENGINEER	SAN - SANITARY SEWER
ENT - ENTRANCE	SCH. - SCHEDULE
EP - ENDING POINT	SD - STORM DRAIN
EPDM - ETHYLENE PROPYLENE DIENE MONOMER	SDR - STANDARD DIAMETER RATIO
EPSC - EROSION PREVENTION & SEDIMENT CONTROL	SEP - SEPARATION
ETC. - ET CETERA	SHT - SHEET
EVCE - ENDING VERTICAL CURVE ELEVATION	SHTL - SEASONAL HIGH GROUNDWATER LEVEL
EVCS - ENDING VERTICAL CURVE STATION	SIP - SPIKE IN POLE
E.W. - EACH WAY	SIR - SPIKE IN ROOT
EXIST - EXISTING	SO - SHUT-OFF
fc - CONCRETE COMPRESSIVE STRENGTH	SPEC - SPECIFICATION
FFEL - FINISH FLOOR ELEVATION	SQ - SQUARE
FG - FINISH GROUND	SS - STAINLESS STEEL
FLEX - FLEXIBLE	ST - STREET
FLG. - FLANGED	STA - STATION
FM - FORCE MAIN	STATION - STATION
FT - FOOT OR FEET	SUCT - SUCTION
GAL. - GALLONS	SW - SIDEWALK
GMP - GALVANIZED METAL PIPE	TB - THURST BLOCK
GPM - GALLONS PER MINUTE	TBM - TEMPORARY BENCH MARK
GPS - GLOBAL POSITIONING SYSTEM	TDH - TOTAL DYNAMIC HEAD
GRAV - GRAVITY	TELE - TELEPHONE
GRND - GROUND	THK - THICK
GRVL - GRAVEL	TOC - TOP OF CURB
GSP - GALVANIZED STEEL PIPE	TOF - TOP OF FOOTING
GV - GATE VALVE	TOS - TOP OF SLAB
H - HORIZONTAL or HIGH	TP - TEST PIT
HC - HANDICAPPED (PARKING)	TPY - TYPICAL
HB - HIGHWAY BOUNDS	UG - UNDERGROUND
HDPE - HIGH DENSITY POLYETHYLENE	UON - UNLESS OTHERWISE NOTED
HEX - HEXAGON	USGS - UNITED STATES GEOLOGICAL SURVEY
HORIZ - HORIZONTAL	V - VALVE or VERTICAL
HP - HIGHEST POINT	VAOT - VERMONT AGENCY OF TRANSPORTATION (VTRANS)
HSE - HOUSE	VC - VITRIFIED CLAY or VERTICAL CURVE
HWL - HIGH WATER LEVEL	VERT - VERTICAL
HYD - HYDRANT	VOL - VOLUME
ID - INSIDE DIAMETER	V.S.A. - VERMONT STATUTES ANNOTATED
IF - INNER FACE	VSWI - VERMONT SIGNIFICANT WETLAND INVENTORY
IN - INCHES	W - WATER or WEST or WIDE
INCR - INCREASER	W/ - WITH
INFO - INFORMATION	WL - WATER LEVEL
INTER - INTERSECTION	WSO - WATER SHUT-OFF
INV - INVERT	WWF - WELDED WIRE FABRIC
IP - IRON PIPE or PIN	WWM - WOVEN WIRE MESH
IPF - IRON PIN / PIPE FOUNT	
IPS - IRON PIN / PIPE SET	
ISO - ISOLATION	

GENERAL NOTES:

- THESE PLANS ARE TO BE USED IN CONJUNCTION WITH VAOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2018 EDITION, SUBSEQUENT UPDATED SPECIFICATIONS GSB-1816 DATED OCTOBER 25, 2022, AND BID DOCUMENTS DATED DECEMBER 15, 2022 INCLUDING SPECIAL PROVISIONS AND PROJECT PERMITS.
- ALL RIGHT-OF-WAY AND PROPERTY LINE INFORMATION WAS ASSIMILATED THROUGH A COMPILATION OF VARIOUS SOURCES INCLUDING BUT NOT LIMITED TO THE TOWN OF NEWFANE VERMONT TAX MAPPING RECORDS (DIGITAL FORMAT). INFORMATION SHOWN IS FOR GENERAL LOCATION PURPOSES ONLY. MARBLE VALLEY ENGINEERING, PC WILL NOT BE HELD LIABLE FOR ANY ERRORS AND OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THIS DOCUMENT AS A RESULT OF INFORMATION PROVIDED FROM OTHER SOURCES. IF ANY ROW EASEMENTS OR ACQUISITIONS ARE NEEDED, THE PROPERTY LINES AND ROW LIMITS WILL NEED TO BE VERIFIED AND NOTE UPDATED. EASEMENTS ARE BASED UPON THE SURVEY AND OTHER SOURCES EXTRACTED FROM THESE PLANS.
- THE CONTRACTOR IS REQUIRED TO CONTACT DIG SAFE FOR ALL EXISTING UTILITIES WITHIN, AND IF NECESSARY, BEYOND THE PROJECT LIMITS INCLUDING EXISTING WATER MAINS, SANITARY SEWERS, STORM SEWERS, CULVERTS, CURB STOPS, PROPERTY MARKERS, ETC.
- ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. CONTRACTOR TO FIELD LOCATE AND FLAG EXISTING UTILITIES USING A PIPE LOCATOR OR AS REQUIRED, PRIOR TO CONSTRUCTION. IF CONTRACTOR DOES NOT HAVE NECESSARY EQUIPMENT, OR AN EXPERIENCED OPERATOR, THEN CONTRACTOR SHALL HIRE SUCH SERVICES. TO BE INCLUDED IN THE BID. CONSTRUCTION SHALL NOT PROCEED IN ANY AREA WHERE EXISTING MAINS/ SERVICES/ UTILITIES HAVE NOT BEEN LOCATED TO THE CONTRACTOR'S BEST ABILITY TO DO SO.
- AT LEAST SEVEN (7) DAYS PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE TOWN OF NEWFANE TO ALLOW PREPARATION OF ANY FIRE PROTECTION MEASURES.
- CONTRACTOR SHALL NOT DISRUPT TRAFFIC FLOW WITHOUT A 48-HOUR NOTICE TO ALL AFFECTED PARTIES INCLUDING BUT NOT LIMITED TO THE TOWN FIRE DEPARTMENT.
- THE GENERAL CONDITIONS OF THE WETLAND GENERAL PERMIT 3-9025 APPLY TO THIS PROJECT. THIS PROJECT'S PERMIT NUMBER IS 2020-434.

EROSION CONTROL NOTES:

- THE "ON-SITE EROSION CONTROL PLAN COORDINATOR" SHALL BE PROVIDED BY THE CONTRACTOR. THIS INDIVIDUAL SHALL BE PRESENT ON-SITE FROM DAY-TO-DAY, AND SHALL BE RESPONSIBLE FOR ENSURING THAT THE EROSION CONTROL MEASURES REQUIRED BY THE EROSION CONTROL PLAN, DETAILS AND NOTES ARE PROPERLY INSTALLED AND MAINTAINED. THE ONSITE EROSION CONTROL PLAN COORDINATOR SHALL KEEP A WRITTEN RECORD OF INSPECTIONS AND MAINTENANCE OF EROSION CONTROL FEATURES. A COPY OF THESE PLANS AND INSPECTION/ MAINTENANCE RECORDS SHALL BE KEPT ONSITE AT ALL TIMES.
 - EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH "THE LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL" MOST RECENT VERSION, AND THE PROJECT SPECIFICATIONS.
 - THESE SPECIFICATIONS ARE INTENDED TO ENSURE THAT CONSTRUCTION IS ACHIEVED WITH A MINIMUM OF DISTURBANCE TO THE ENVIRONMENT. THESE ARE GENERAL GUIDELINES AND SHOULD ANY PROTECTIVE MEASURES PROVE DEFICIENT, THEN THE IMMEDIATE PROVISION OF ADDITIONAL MATERIALS OR THE EMPLOYMENT OF DIFFERENT TECHNIQUES SHALL BE APPLIED TO CORRECT THE SITUATION AND PREVENT SUBSEQUENT EROSION.
 - ALL AREAS OF EARTH DISTURBANCE MUST HAVE TEMPORARY OR FINAL STABILIZATION WITHIN 14 DAYS OF INITIAL DISTURBANCE, AS STATED IN THE PROJECT AUTHORIZATION. AFTER THIS TIME, DISTURBED AREAS MUST BE TEMPORARILY STABILIZED OR PERMANENTLY STABILIZED IN ADVANCE OF ANY RUNOFF PRODUCING EVENT. A RUNOFF PRODUCING EVENT IS AN EVENT THAT PRODUCES RUNOFF FROM THE CONSTRUCTION SITE.
- THE FOLLOWING EXCEPTION APPLIES:
- TEMPORARY STABILIZATION IS NOT REQUIRED IF THE WORK IS OCCURRING IN A SELF-CONTAINED EXCAVATION (i.e. NO OUTLET) WITH A DEPTH OF 2 FEET OR GREATER (e.g. HOUSE FOUNDATION EXCAVATION, UTILITY TRENCHES).
- TOTAL DISTURBANCE IS 455± SQ. FT. (0.10 AC) RESULTING IN NO NEED FOR CONSTRUCTION STORMWATER PERMIT.
 - EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIRED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFORM WITH ANY PERMIT AND TO USE ADDITIONAL BARRIERS/ METHODS AS CIRCUMSTANCES DICTATE.
 - IN ADVANCE OF A PREDICTED RAINFALL OR SNOWMELT EVENT, ALL MANAGEMENT PRACTICES APPROPRIATE TO CURRENT AREAS OF DISTURBANCE MUST BE CHECKED AND REPAIRED AS NECESSARY TO ENSURE PROPER OPERATING CONDITIONS. IF NECESSARY TO PREVENT SEDIMENT DISCHARGE FROM THE CONSTRUCTION SITE TO THE WATERS OF THE STATE, THIS WILL INCLUDE THE TEMPORARY STABILIZATION OF ALL DISTURBED SOILS ON THE SITE IN ADVANCE OF THE ANTICIPATED RUNOFF PERIOD.
 - SEDIMENTS AND POLLUTANTS COLLECTED AND REMOVED IN THE COURSE OF TREATMENT OF STORMWATER RUNOFF SHALL BE DISPOSED IN A MANNER THAT WILL NOT RESULT IN THE SEDIMENTS AND POLLUTANTS ENTERING WATERS OF THE STATE.

EROSION PREVENTION & SEDIMENT CONTROL LEGEND:

STABILIZED CONSTRUCTION ENTRANCE	
DUST CONTROL	
STONE OUTLET SEDIMENT TRAP	
CHECK DAM	
ROLLED EROSION CONTROL PRODUCT	
TEMPORARY / PERMANENT SEEDING	
TOPSOILING	
RIPRAP SLOPE PROTECTION	
RIPRAP OUTLET PROTECTION	
MULCHING	
PROTECTING VEGETATION	
WIRE WOVEN SILT FENCE	
BARRIER FENCE	
PERIMETER DRAIN / SWALE	
WATER BAR DIVERSION	
FIBER ROLL	

SURVEY / BOUNDARY NOTES:

- THE PROPERTY LINES, EASEMENTS, AND OTHER REAL PROPERTY DESCRIPTIONS PROVIDED IN THIS PERMIT APPLICATION ARE FOR THE USE OF THE AGENCY OF NATURAL RESOURCES ONLY. THEY DO NOT DEFINE LEGAL RIGHTS OR MEET LEGAL REQUIREMENTS FOR A LAND SURVEY AS DESCRIBED IN 26 V.S.A. §2502 (4), AND SHALL NOT BE USED IN LIEU OF A SURVEY AS THE BASIS OF ANY LAND TRANSFER OR ESTABLISHMENT OF ANY PROPERTY RIGHT.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PRESERVE AND PROTECT ALL BOUNDARY MONUMENTATION. IF DAMAGED OR DESTROYED, BOUNDARY MARKERS SHALL BE RESET BY A VERMONT STATE REGISTERED LAND SURVEYOR AT CONTRACTOR'S EXPENSE.
- PLANS ARE BASED IN PART ON TOPOGRAPHIC AND BOUNDARY SURVEYS PERFORMED BY VERMONT SURVEY CONSULTANTS MAY 2019.
- ALL NORTH ARROWS IN THIS PLAN SET REFERENCE GRID NORTH.

TEST PIT DATA

Test Pit Number	General Location	Depth	Vernacular color	Soil Type	Mottling	Consistence	Structure	Notes
1 APPROX. EL 539.0	South of Depot Rd, west of stream	0-6"	10YR 3/3	Loamy Sand	None	Loose	Subangular Blocky	
		6-17"	10YR 2/2	Coarse Sandy Loam	None	Loose	Subangular Blocky	Rust staining
		17-50"	10YR 3/1	Fine Sandy Loam	None	Firm	Subangular Blocky / Granular	Refusal on rock @50" / Seepage @50"

Test Pit Number	General Location	Depth	Vernacular color	Soil Type	Mottling	Consistence	Structure	Notes
2 APPROX. EL 540.5	South of Depot Rd, east of stream	0-7"	10YR 3/3	Sandy Loam	None	Friable	Blocky / Sunangular Blocky	
		7-18"	10YR 4/3	Medium Sandy Loam	None	Loose	Subangular Blocky	
		18-24"	10YR 4/1	Silty Loam	Light Brown on Darkish Grey	Firm	Subangular Blocky	
		24-56"	10YR 2/2	Sandy Silt	None	Very Firm	Blocky	

Test Pit Number	General Location	Depth	Vernacular color	Soil Type	Mottling	Consistence	Structure	Notes
3 APPROX. EL 538.0	North of Depot Rd, east of stream	0-12"	10YR 4/4	Sand	None	Loose	Structureless	
		12-26"	10YR 4/3	Sandy Loam	None	Loose	Subangular Blocky	Cobble / Small Boulders
		26-48"	10YR 3/3	Fine Sandy Loam	None	Firm	Subangular Blocky	Cobble / Small Boulders
		48-50"	10YR 3/2	Sandy Silt	None	Very Firm	Subangular Blocky	Cobble / Small Boulders

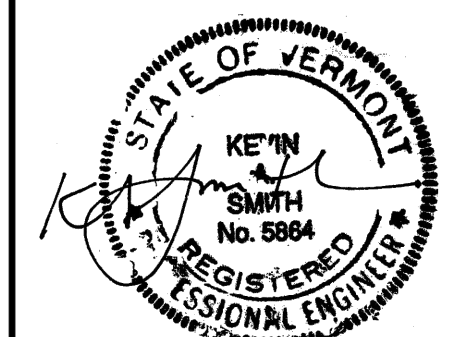
LEGEND:

CONTINUATION OF STREET LINE		GUY WIRE (EXISTING)		WATER LINE (NEW)	
CONTINUATION OF PROPERTY LINE		GUY WIRE (PROPOSED)		WATER LINE (EXISTING)	
IRON PIN/ PIPE (EXISTING)		UTILITY PEDESTAL		OVERHEAD ELECTRIC (EXISTING)	
MARBLE MONUMENT / HB		OBSERVATION WELL		OVERHEAD ELECTRIC (NEW)	
UNMONUMENTED POINT		TELEPHONE MANHOLE		UNDERGROUND ELEC (EXISTING)	
ELEVATION BENCHMARK		UTILITY/ POWER POLE (EXISTING)		UNDERGROUND ELEC (NEW)	
TEST PIT		UTILITY/ POWER POLE (PROPOSED)		PROPERTY LINE	
CURB STOP/ WATER SHUTOFF (EXISTING)		LIGHT POLE (EXISTING)		ROW LINE	
CURB STOP/ WATER SHUTOFF (PROPOSED)		SIGN		CHAIN LINK FENCE	
GATE VALVE (EXISTING)		CONCRETE FILLED BOLLARD		WOODEN FENCE	
GATE VALVE (NOT LOCATED)		WOOD POST (ROUND)		PAGE WIRE FENCE	
GATE VALVE (PROPOSED)		WOOD POST (SQUARE)		GUARD RAIL	
CHECK VALVE (PROPOSED)		METAL VENT STACK		STONE WALL	
CAP (EXISTING)		SHRUB		TREE LINE	
CAP (PROPOSED)		WETLAND		WETLAND BOUNDARY	
REDUCER		RIPRAP		MAJOR CONTOUR (EXISTING)	
SOLID SLEEVE (PROPOSED)		DECIDUOUS TREE		MAJOR CONTOUR (PROPOSED)	
THRUST BLOCK		CONIFEROUS TREE		MINOR CONTOUR (EXISTING)	
FIRE/ FLUSHING HYDRANT (EXISTING)		SOIL BORING		MINOR CONTOUR (PROPOSED)	
FIRE/ FLUSHING HYDRANT (PROPOSED)		LEDGE PROBE		SB-1	
SANITARY SEWER MANHOLE				LP-1	
CATCH BASIN (PROPOSED)					

REV	DESCRIPTION	DATE



69 GROVE STREET, RUTLAND, VERMONT
WWW.MARBLEVALLEYENGINEERING.COM



CIVIL ENGINEER

DEPOT ROAD CLASS II BOX CULVERT REPLACEMENT
 TAP TA18(5)
 NEWFANE, VERMONT
 NOTES/LEGEND

PROJECT NO.: M1142
 DRAWN BY: REW
 SCALE: NONE
 DATE: JANUARY 11, 2023
 SHEET: G002

COPYRIGHT © 2022 MARBLE VALLEY ENGINEERING, PC
 ALL RIGHTS RESERVED. THIS DOCUMENT OR ANY PART THEREOF MAY NOT BE REPRODUCED OR
 UTILIZED IN ANY FORM WITHOUT PRIOR WRITTEN PERMISSION FROM MARBLE VALLEY ENGINEERING, PC.

NRCS SOIL MAPPING UNIT KEY

(NRCS DEPTH TO WATER TABLE 1.5-2.5 FEET)

- 52B** SHEEPSKOT FINE SANDY LOAM (3% TO 8% SLOPES) - SEE TABLE
- 50B** COLTON LOAMY FINE SAND (2% TO 8% SLOPES)

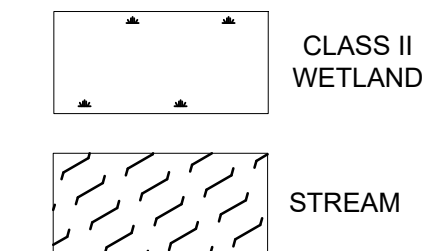
TYPICAL SHEEPSKOT(52B) CROSS SECTION:

- Oi 2"-1": SLIGHTLY DECOMPOSED LEAVES, NEEDLES, TWIGS
- Oe 1"-0": MODERATELY DECOMPOSED ORGANIC MATTER
- A 0"-2": BLACK (5YR 2/1) FINE SANDY LOAM; WEAK FINE GRANULAR STRUCTURE; FRIABLE; MANY ROOTS
- E 2"-5": PALE BROWN (10YR 6/2) GRAVELLY FINE SANDY LOAM; MODERATE MEDIUM GRANULAR STRUCTURE; FRIABLE; MANY ROOTS
- Bh 5"-7": DARK BROWN (7.5YR 3/2) GRAVELLY FINE SANDY LOAM; MODERATE MEDIUM GRANULAR STRUCTURE; FRIABLE; MANY ROOTS
- Bs 7"-14": BROWN (7.5YR 4/4) GRAVELLY FINE SANDY LOAM; MODERATE MEDIUM GRANULAR STRUCTURE; FRIABLE; MANY ROOTS
- 2BC 14"-19": STRONG BROWN (7.5YR 5/6) VERY GRAVELLY LOAMY SAND; MANY FINE PROMINENT YELLOWISH BROWN (2.5Y 6/4) MOTTLES; WEAK THICK PLATY STRUCTURE; FRIABLE; COMMON ROOTS
- 2C 19"-60": LIGHT OLIVE BROWN (2.5Y 5/4) EXTREMELY GRAVELLY LOAMY SAND; COMMON FINE PROMINENT STRONG BROWN (7.5YR 5/6) MOTTLES AND COMMON FINE DISTINCT LIGHT BROWNISH GRAY (2.5Y 6/2) MOTTLES; MASSIVE; FRIABLE; FEW ROOTS

- DEPTH TO BEDROCK IS MORE THAN 60 INCHES
- DEPTH TO SEASONAL HIGH WATER TABLE : 1.5'-2.5'

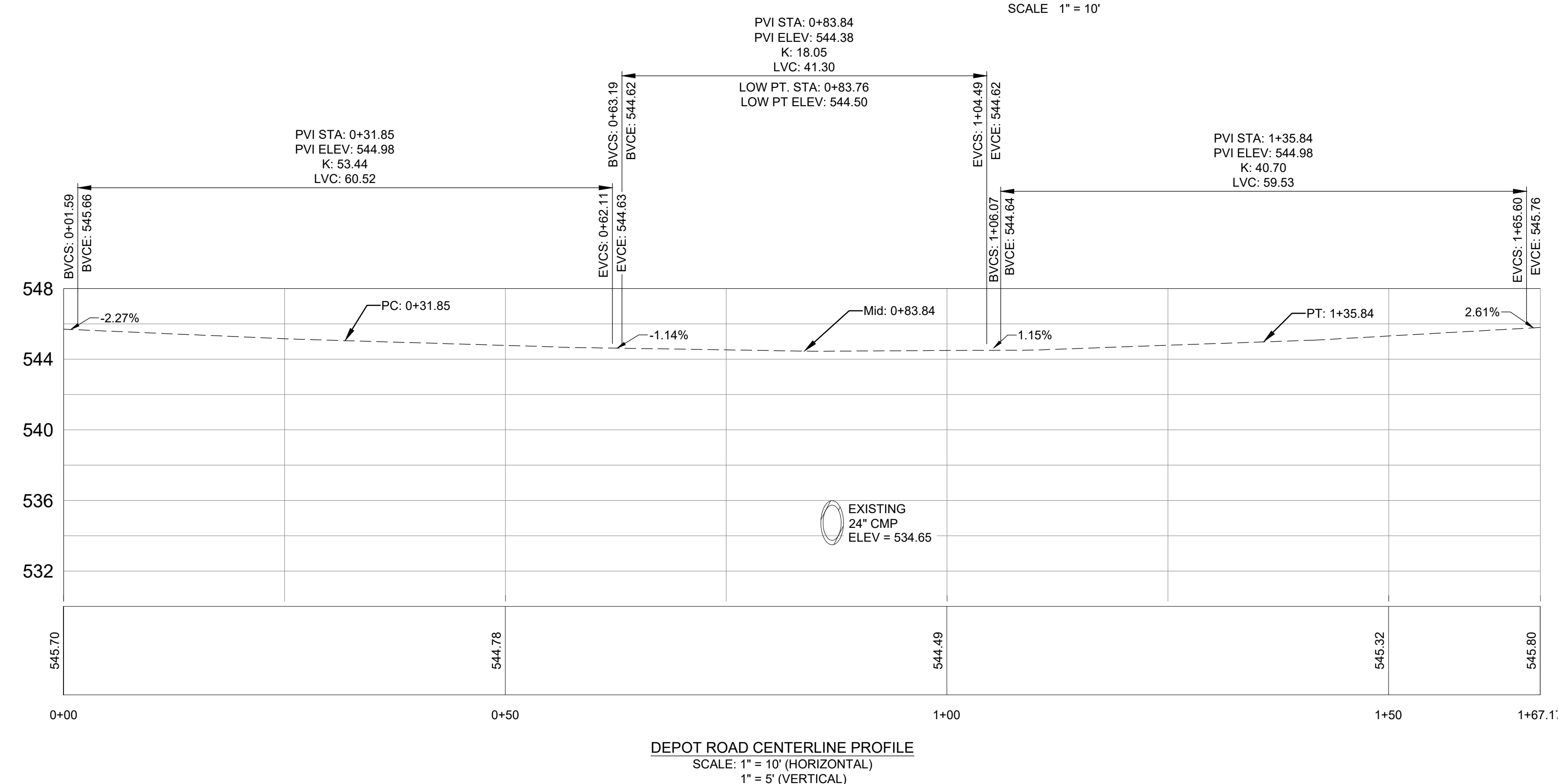
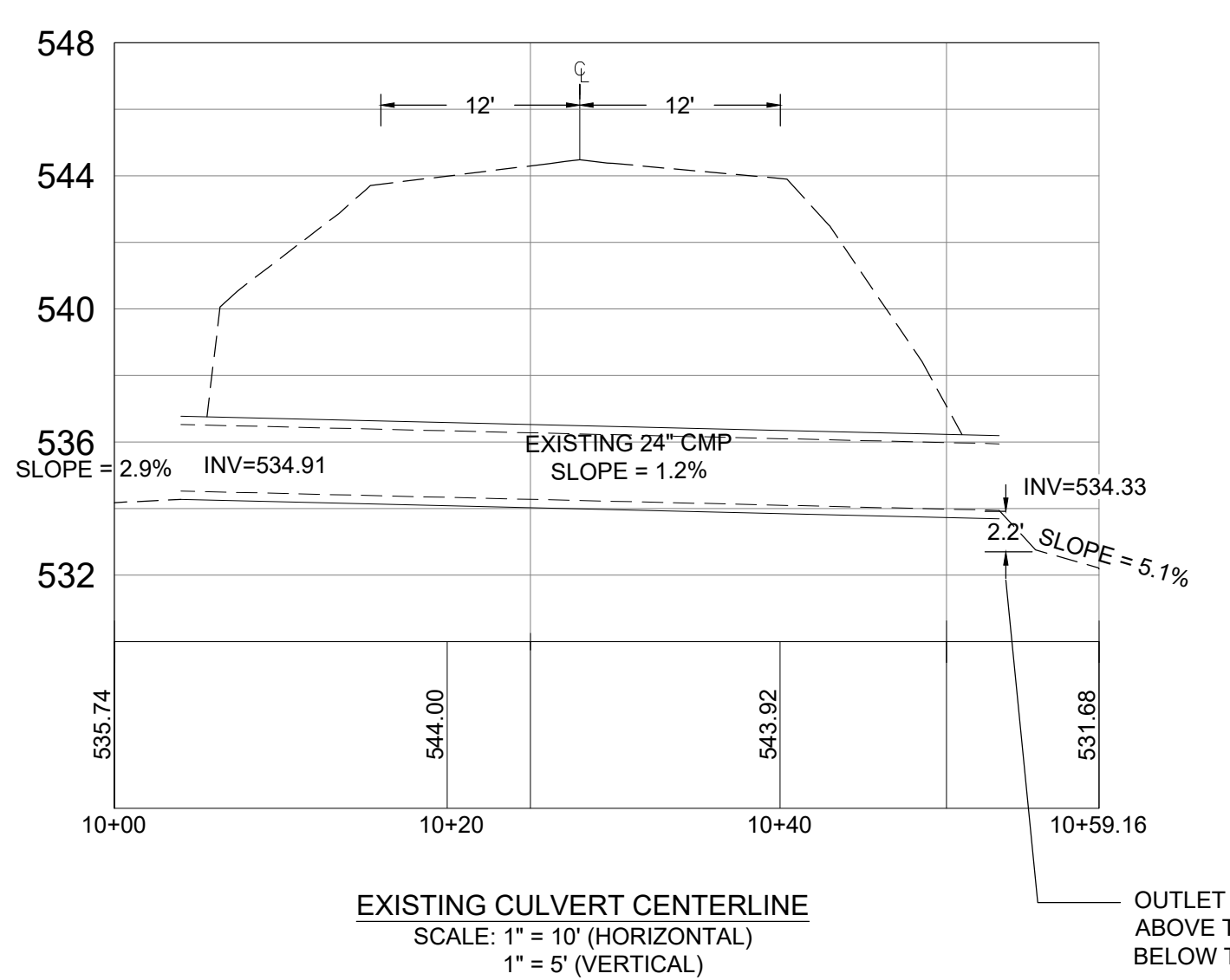
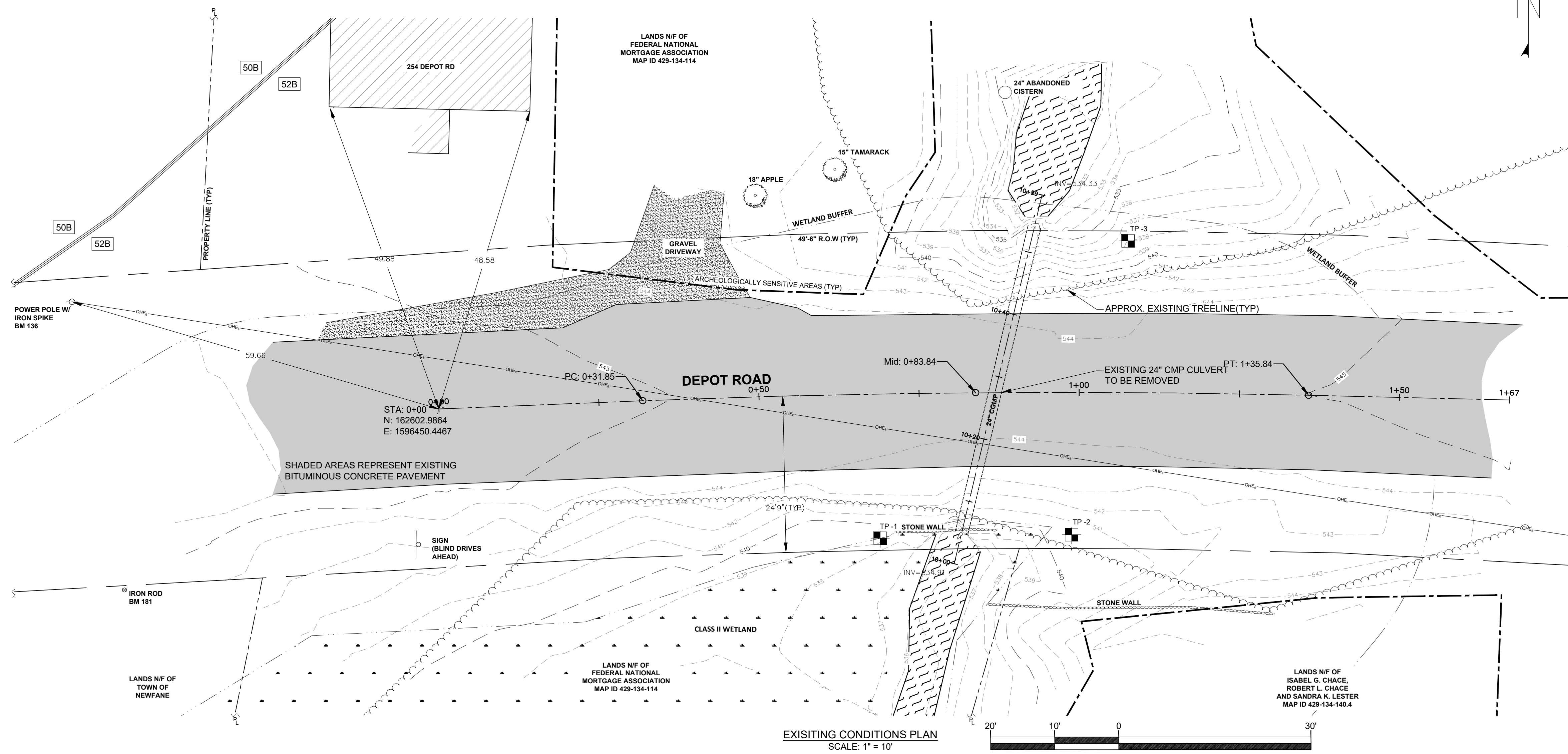
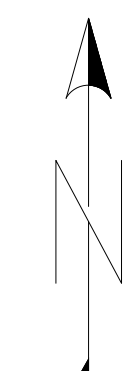
CALCULATED CULVERT CAPACITY
(HYDRAULICS REPORT BY NORTHSTAR HYDRO)

RETURN PERIOD	% PROBABILITY OF OCCURRENCE	FLOW RATE
2yr	50%	14cfs
10yr	10%	32cfs
25yr	4%	43cfs
50yr	2%	53cfs
100yr	1%	64cfs



BENCHMARKS
(SURVEY DATUM NAD83)

PT#	NORTHING	EASTING	ELEV	DESCRIPTION
136	162619.6633	1596393.8967	546.82	SPIKE IN POLE
155	162621.4308	156263.7067	550.29	IPF TO GRADE
181	162574.7244	1596401.3703	547.49	IRF TO GRADE



REV.	DESCRIPTION	BY	DATE



69 GROVE STREET, RUTLAND, VERMONT
WWW.MARBLEVALLEYENGINEERING.COM



DEPOT ROAD CLASS II BOX CULVERT REPLACEMENT
TAP TA18(5)
NEWFANE, VERMONT
EXISTING CONDITIONS PLAN & PROFILES

PROJECT NO.: M1142
 DRAWN BY: REW
 SCALE: AS NOTED
 DATE: JANUARY 11, 2023

SHEET: C002

COPYRIGHT © 2022 MARBLE VALLEY ENGINEERING, PC
 ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM WITHOUT PRIOR WRITTEN PERMISSION FROM MARBLE VALLEY ENGINEERING, PC.

NEPA RE-EVAL
LANDSCAPE CLEARANCE
PLANTING PLAN RECOMMENDATIONS
10/17/2022

BONNIE DONAHUE
VTRANS LANDSCAPE ARCHITECT
BONNIE.DONAHUE@VERMONT.GOV

KEY

 USE LIVE STAKES AT EDGE OF
RIP RAP STONE

NATIVE RIPARIAN SHRUBS,
TREES W/ WETLAND SEED MIX

NATIVE RIPARIAN SHRUBS,
TREES W/ AOT SEED MIX

AOT SEED MIX

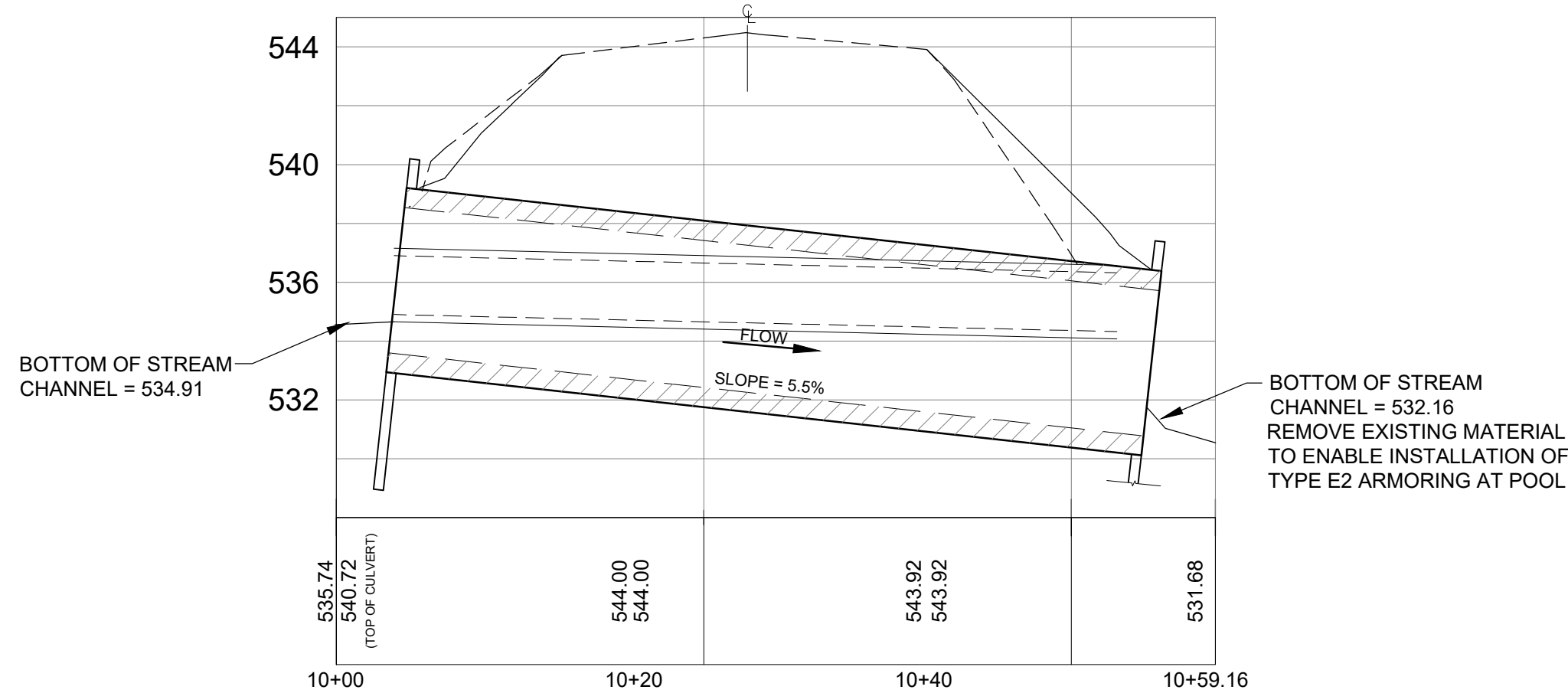
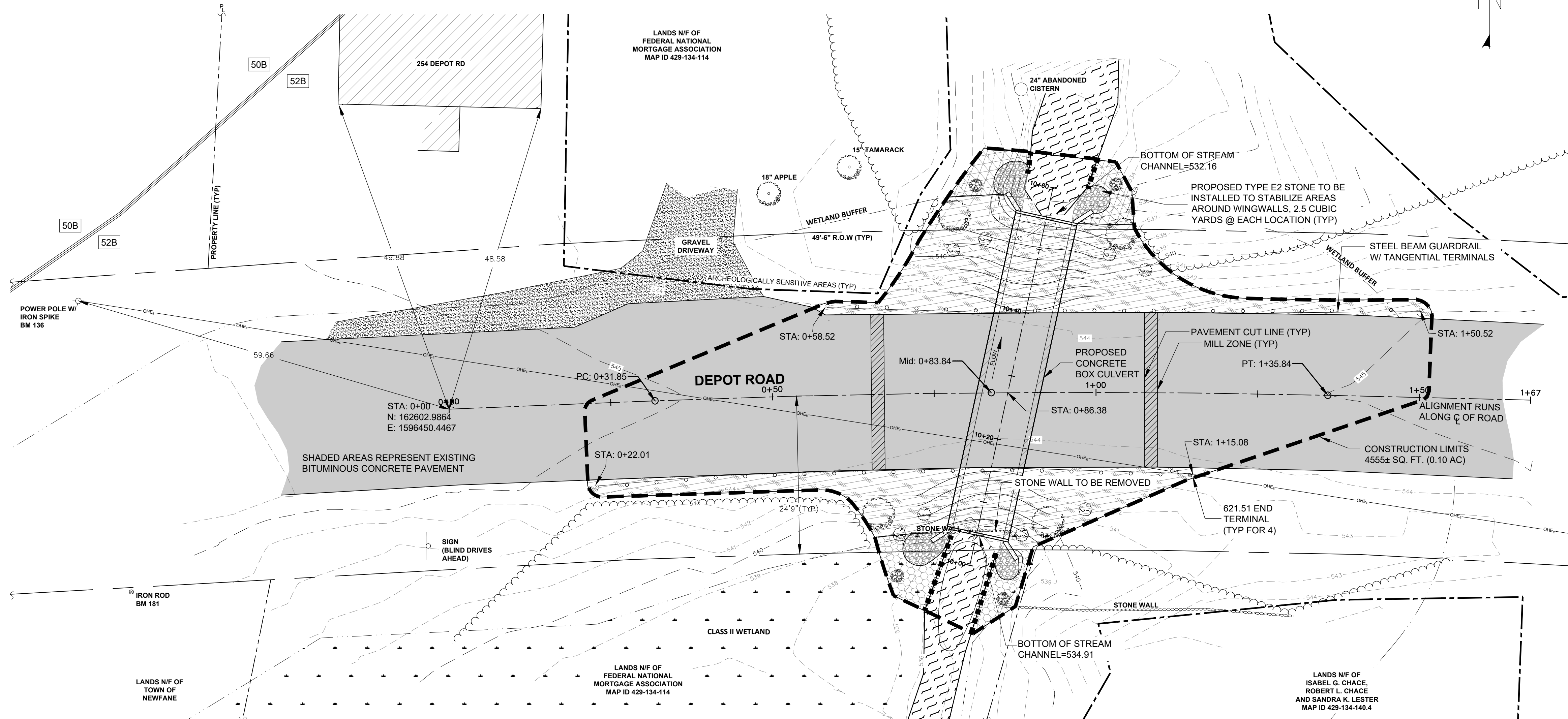
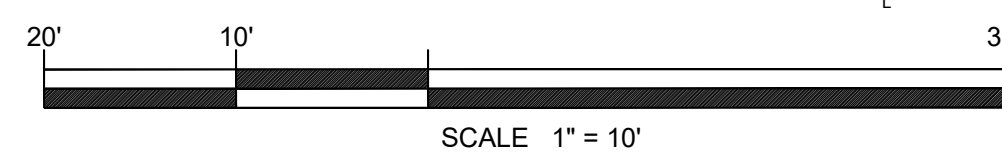
SPIRAEA LATIFOLIA

VIBURNUM LENTAGO

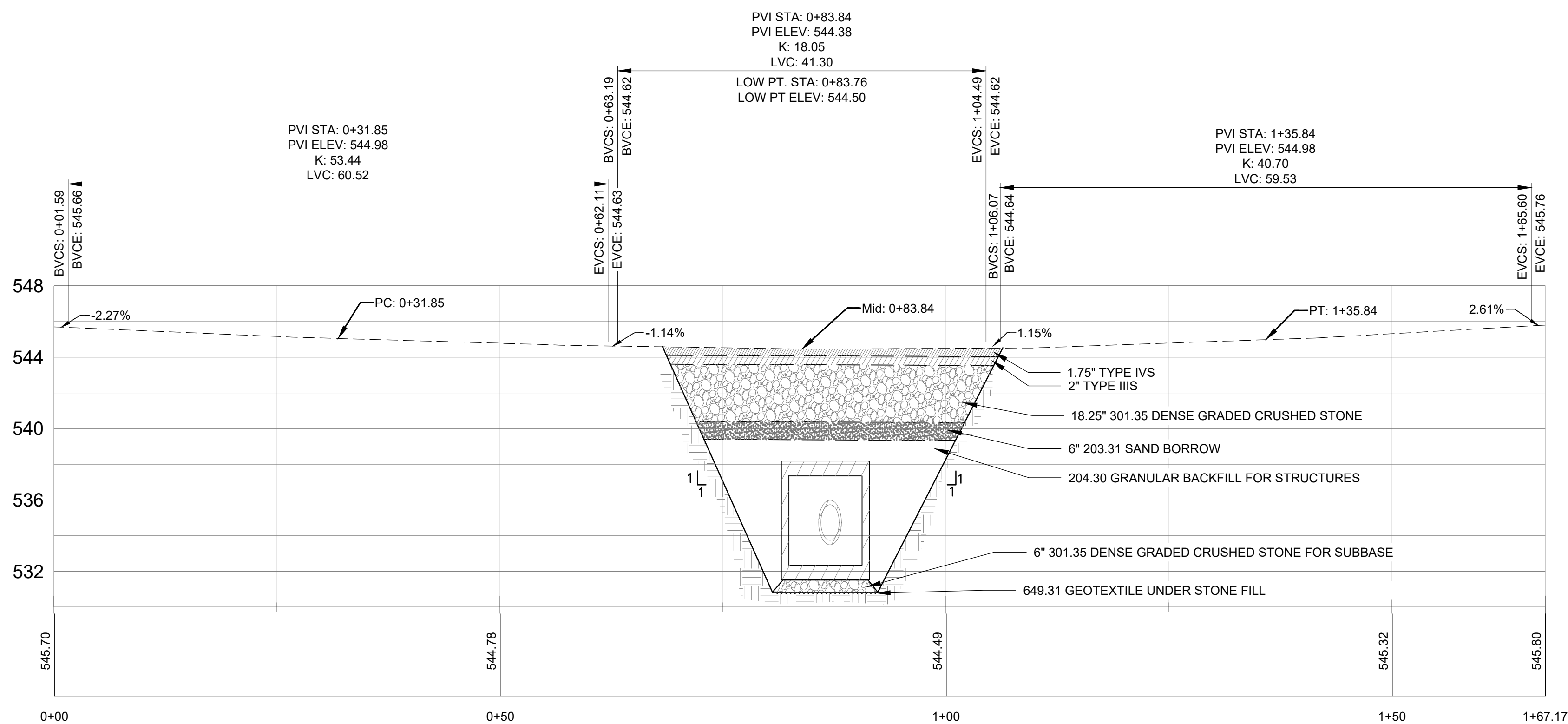
AMELANCHIER ARBOREA
(CAN SUBSTITUTE WITH AMELANCHIER LAEVIS)

NOTES:

- CONTRACTOR TO COORDINATE MOVEMENT OF OVERHEAD ELECTRICAL WIRES DURING CRANE SETTING OF BOX CULVERT.
- REFER TO SHEET C009 FOR MORE GROUND COVER DETAIL.

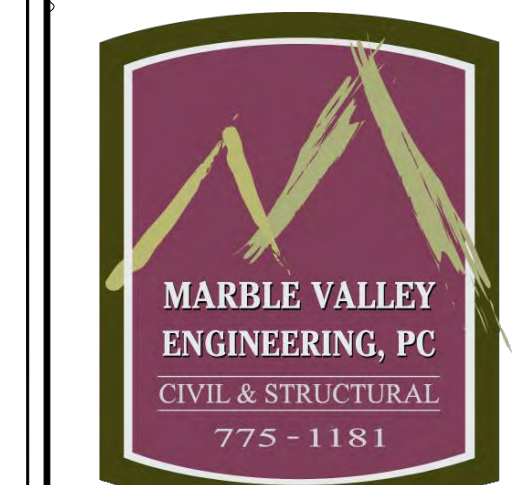


PROPOSED CULVERT CENTERLINE PROFILE
SCALE: 1" = 10' (HORIZONTAL)
1" = 5' (VERTICAL)

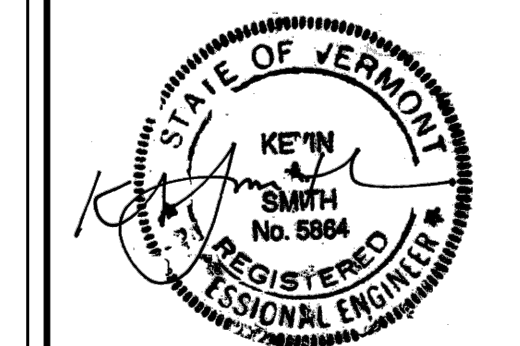


DEPOT ROAD CENTERLINE PROFILE
SCALE: 1" = 10' (HORIZONTAL)
1" = 5' (VERTICAL)

REV.	DESCRIPTION	BY	DATE



69 GROVE STREET, RUTLAND, VERMONT
WWW.MARBLEVALLEYENGINEERING.COM

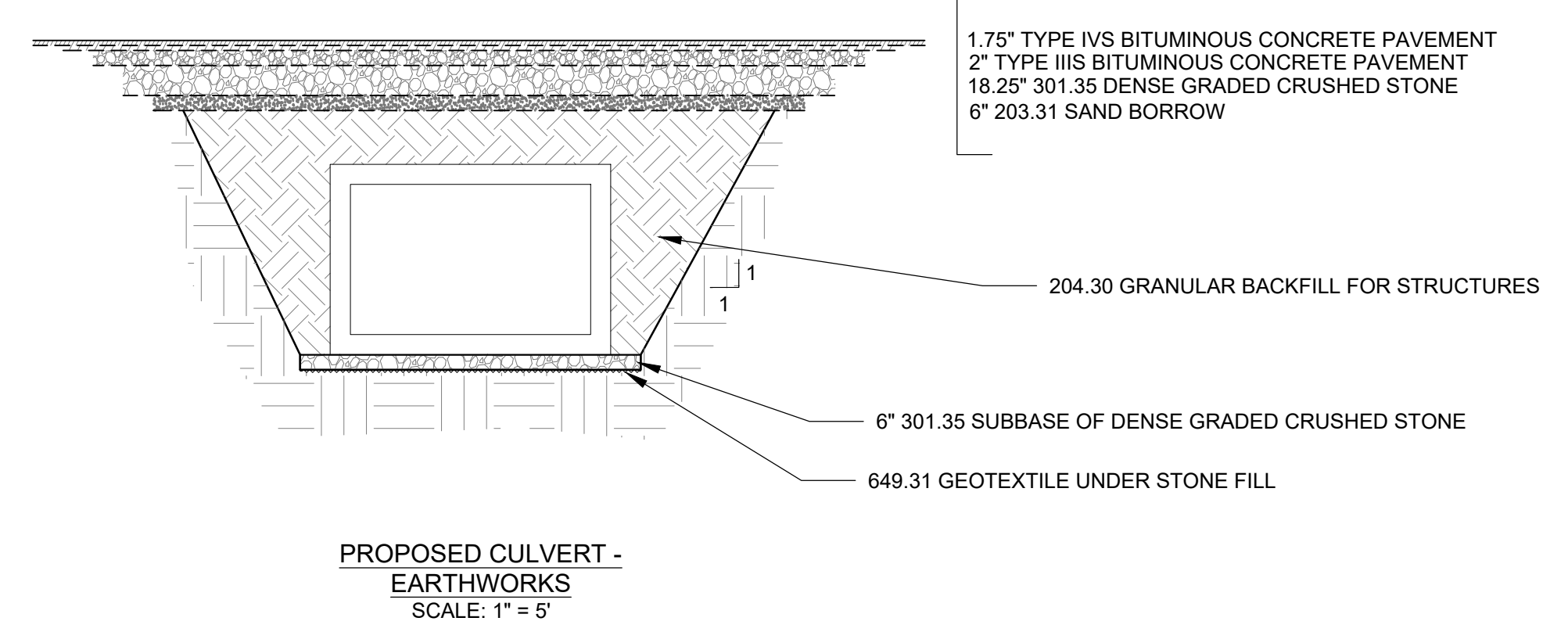
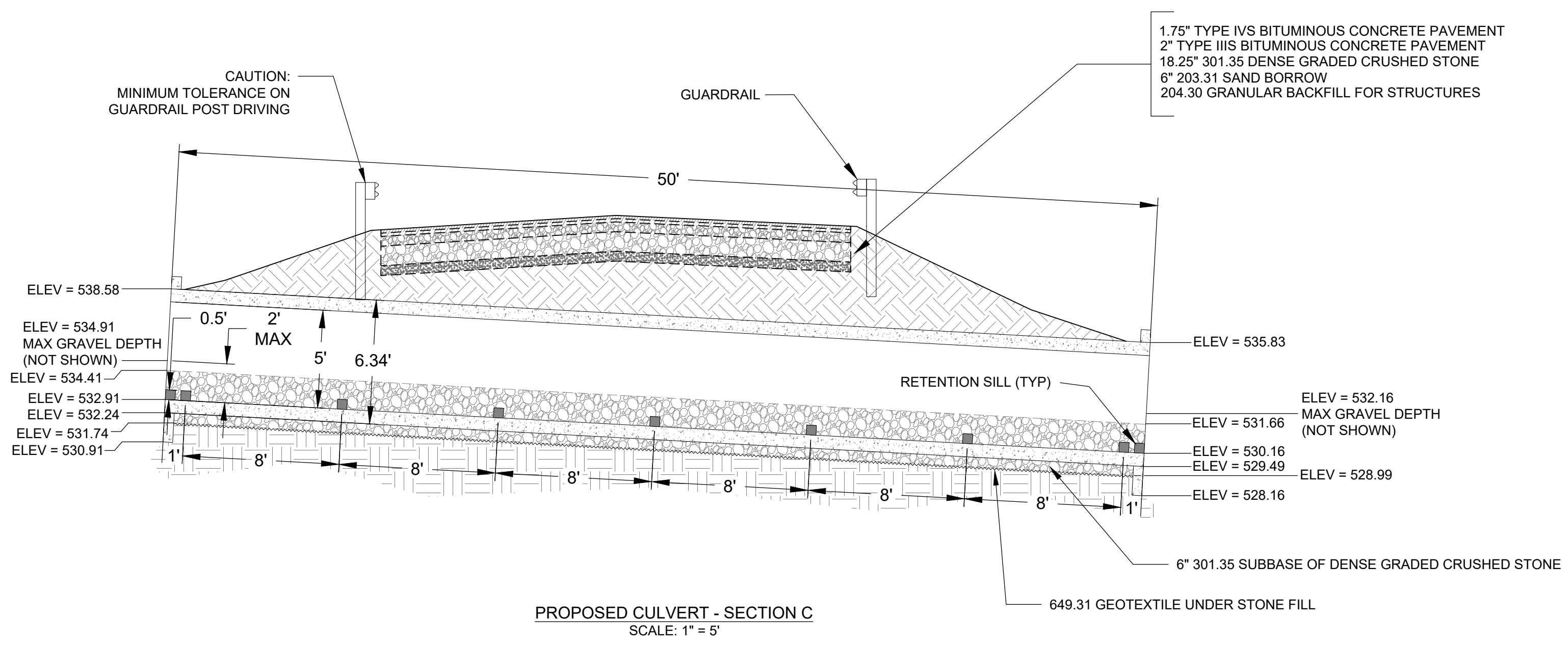
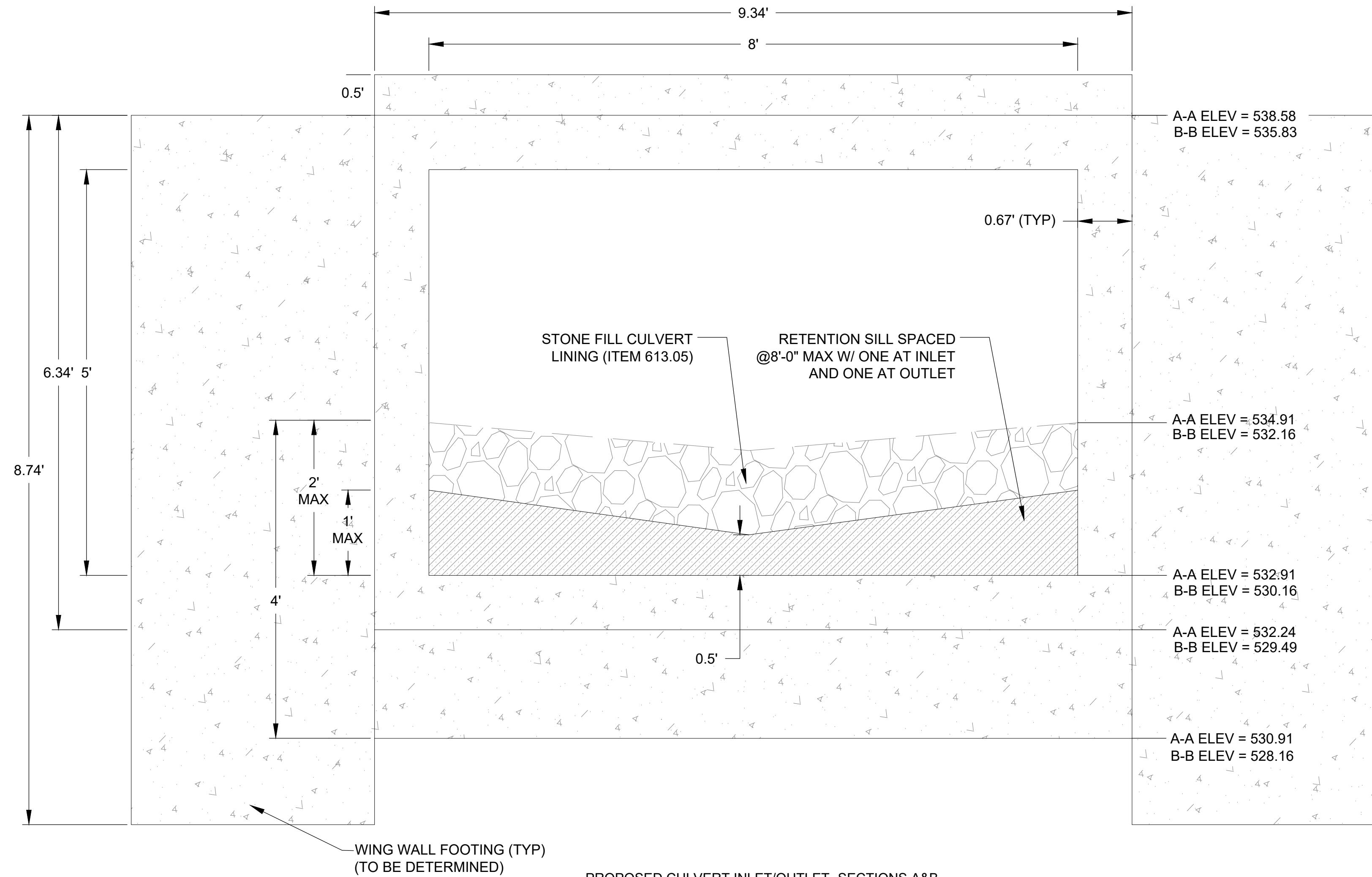
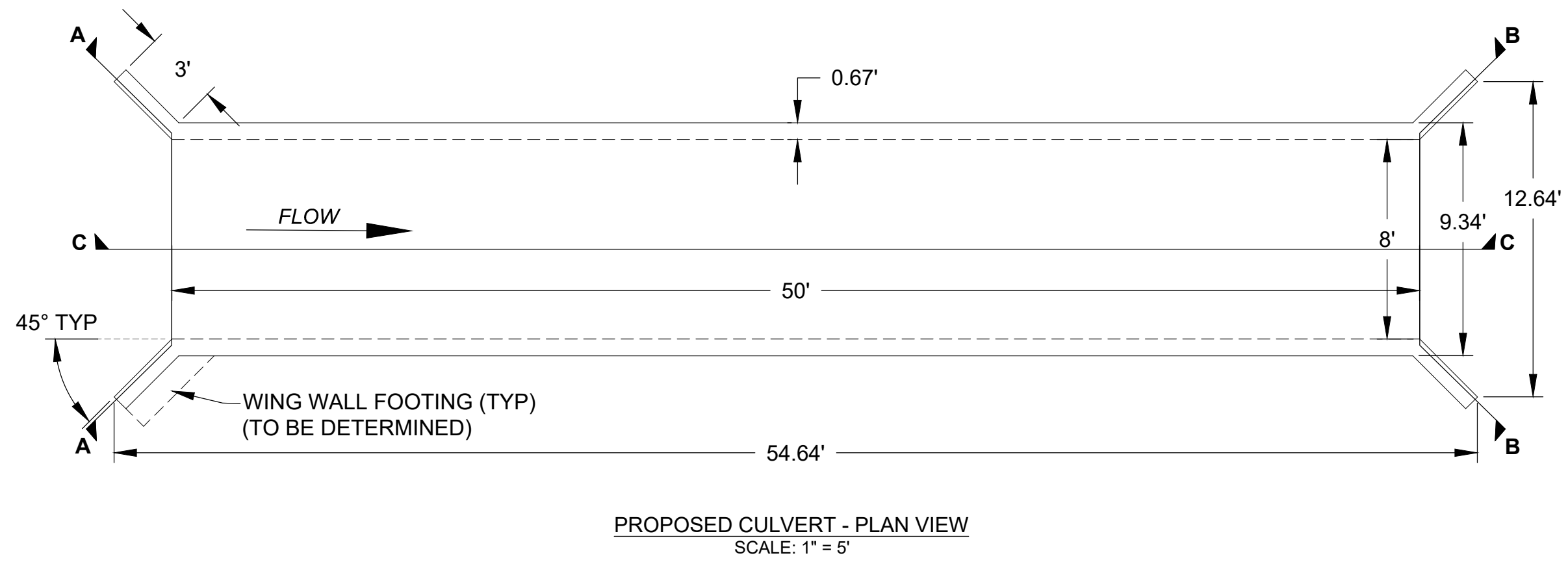


CIVIL ENGINEER

DEPOT ROAD CLASS II BOX CULVERT REPLACEMENT
TAP TA18(5)
NEWFANE, VERMONT
PROPOSED SITE PLAN & PROFILES

PROJECT NO.: M1142
DRAWN BY: REW
SCALE: AS NOTED
DATE: JANUARY 11, 2023
SHEET: C003

COPYRIGHT © 2022 MARBLE VALLEY ENGINEERING, PC
ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT OR
UTILIZED IN ANY FORM WITHOUT PRIOR WRITTEN PERMISSION FROM MARBLE VALLEY ENGINEERING, PC.

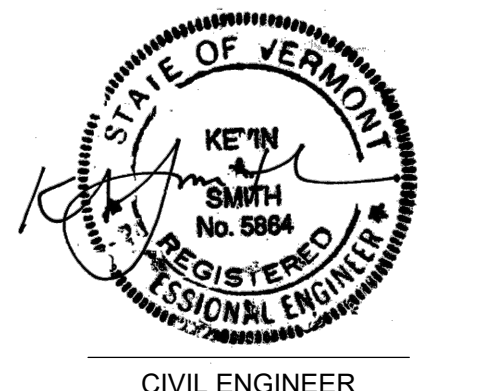


NOTE:
 THE CONCRETE STRUCTURE SHALL BE SUPPLIED AND INSTALLED IN CONFORMANCE WITH THE APPLICABLE VT AOT STANDARD SPECIFICATIONS AS WELL AS THE MUNICIPAL ASSISTANCE BUREAU (MAB) WORK FLOW CHART FOR PRECAST CONCRETE

REV.	DESCRIPTION	BY	DATE



69 GROVE STREET, RUTLAND, VERMONT
 WWW.MARBLEVALLEYENGINEERING.COM



DEPOT ROAD (CLASS II) BOX CULVERT REPLACEMENT
 TAP TA18(5)
 NEWFANE, VERMONT
 CULVERT DETAILS

PROJECT NO.: M1142
 DRAWN BY: REW
 SCALE: AS NOTED
 DATE: JANUARY 11, 2023

SHEET: C004

COPYRIGHT © 2022 MARBLE VALLEY ENGINEERING, PC
 ALL RIGHTS RESERVED. THIS DOCUMENT OR ANY PART THEREOF MAY NOT BE REPRODUCED OR UTILIZED IN ANY FORM WITHOUT PRIOR WRITTEN PERMISSION FROM MARBLE VALLEY ENGINEERING, PC.

TYPICAL SHEEPSCOT(52B) CROSS SECTION:

- Oi 2"-1": SLIGHTLY DECOMPOSED LEAVES, NEEDLES, TWIGS
 - Oe 1"-0": MODERATELY DECOMPOSED ORGANIC MATTER
 - A 0"-2": BLACK (5YR 2/1) FINE SANDY LOAM; WEAK FINE GRANULAR STRUCTURE; FRIABLE; MANY ROOTS
 - E 2"-5": PALE BROWN (10YR 6/2) GRAVELLY FINE SANDY LOAM; MODERATE MEDIUM GRANULAR STRUCTURE; FRIABLE; MANY ROOTS
 - Bh 5"-7": DARK BROWN (7.5YR 3/2) GRAVELLY FINE SANDY LOAM; MODERATE MEDIUM GRANULAR STRUCTURE; FRIABLE; MANY ROOTS
 - Bs 7"-14": BROWN (7.5YR 4/4) GRAVELLY FINE SANDY LOAM; MODERATE MEDIUM GRANULAR STRUCTURE; FRIABLE; MANY ROOTS
 - 2BC 14"-19": STRONG BROWN (7.5YR 5/6) VERY GRAVELLY LOAMY SAND; MANY FINE PROMINENT YELLOWISH BROWN (2.5Y 6/4) MOTTLES; WEAK THICK PLATY STRUCTURE; FRIABLE; COMMON ROOTS
 - 2C 19"-60": LIGHT OLIVE BROWN (2.5Y 5/4) EXTREMELY GRAVELLY LOAMY SAND; COMMON FINE PROMINENT STRONG BROWN (7.5YR 5/6) MOTTLES AND COMMON FINE DISTINCT LIGHT BROWNISH GRAY (2.5Y 6/2) MOTTLES; MASSIVE; FRIABLE; FEW ROOTS
- DEPTH TO BEDROCK IS MORE THAN 60 INCHES
 - DEPTH TO SEASONAL HIGH WATER TABLE : 1.5'-2.5'

CALCULATED CULVERT CAPACITY
(HYDRAULICS REPORT BY NORTHSTAR HYDRO)

RETURN PERIOD	% PROBABILITY OF OCCURRENCE	FLOW RATE
2yr	50%	14cfs
10yr	10%	32cfs
25yr	4%	43cfs
50yr	2%	53cfs
100yr	1%	64cfs

CLASS II WETLAND IDENTIFICATION FROM ARROWWOOD ENVIRONMENTAL, 2019

PROPOSED WETLAND IMPACTS = 177.31 SQ FT

WETLAND BUFFER

PROPOSED BUFFER IMPACTS = 706.76 SQ FT

STREAM

PROPOSED STREAM IMPACTS = 328.88 SQ FT

ARCHEOLOGICALLY SENSITIVE AREAS

NOTE:
WETLAND AND BUFFER IMPACTS TOTAL APPROX. 884 SF. THIS TOTAL IS LESS THAN THE 5,000 SF LIMIT REQUIRED FOR THE PROGRAMMATIC CE.

NRCS SOIL MAPPING UNIT KEY
(NRCS DEPTH TO WATER TABLE 1.5-2.5 FEET)

- 52B SHEEPSCOT FINE SANDY LOAM (3% TO 8% SLOPES) - SEE TABLE
- 50B COLTON LOAMY FINE SAND (2% TO 8% SLOPES)

BENCHMARKS

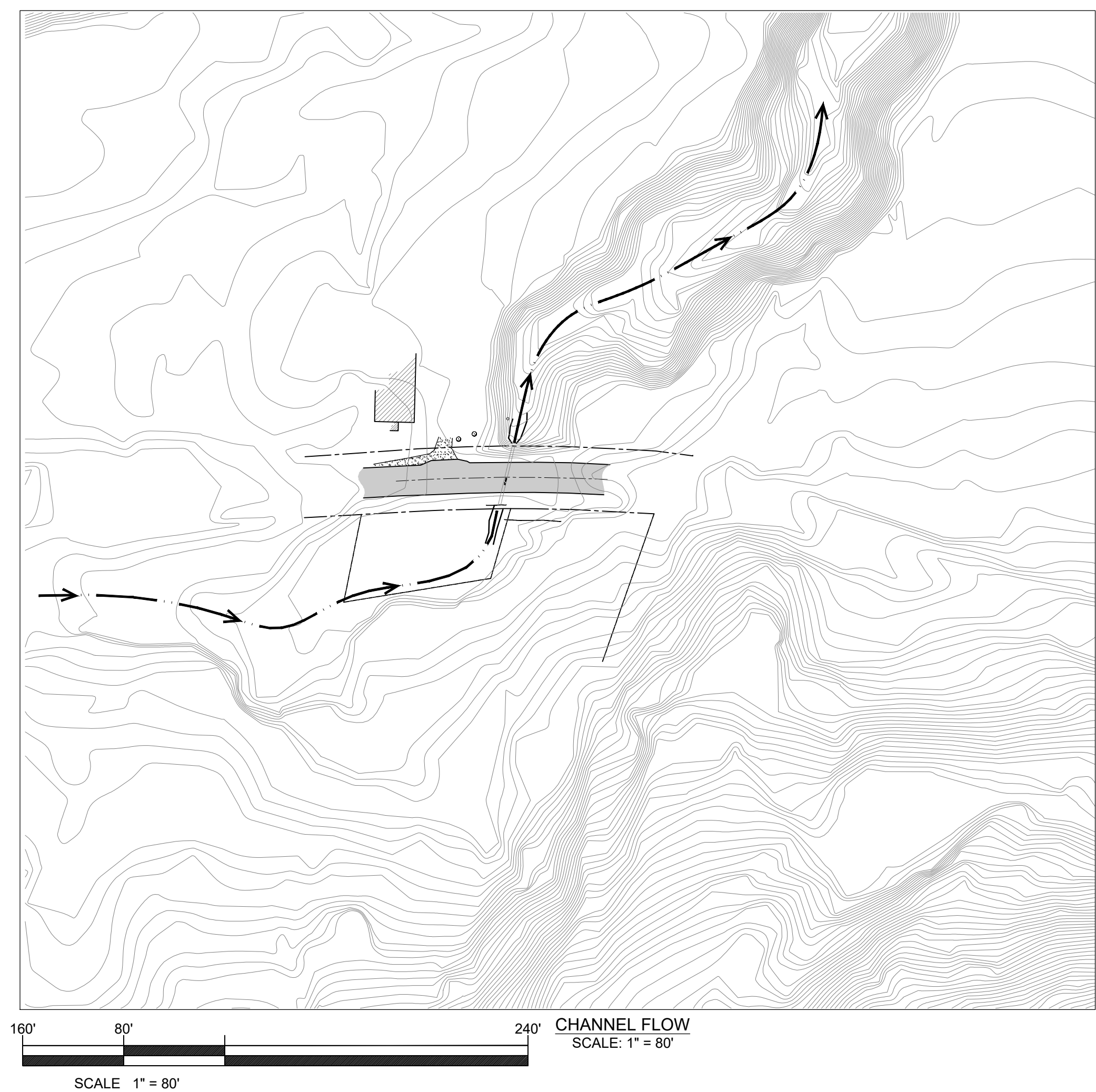
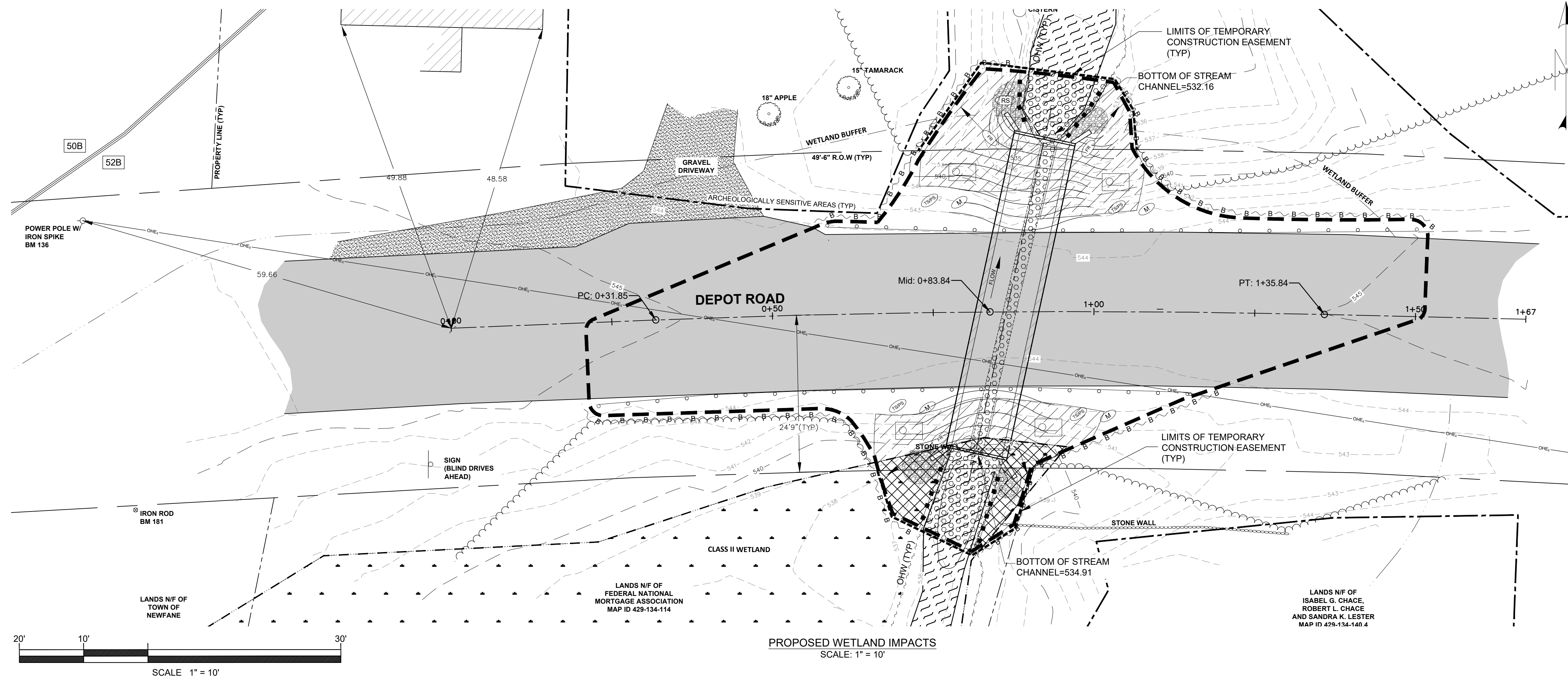
PT#	NORTHING	EASTING	ELEV	DESCRIPTION
136	162619.6633	1596393.8967	546.82	SPIKE IN POLE
155	162621.4308	156263.7067	550.29	IPF TO GRADE
181	162574.7244	1596401.3703	547.49	IRF TO GRADE

EROSION PREVENTION & SEDIMENT CONTROL LEGEND:

- STABILIZED CONSTRUCTION ENTRANCE
- DUST CONTROL
- STONE OUTLET SEDIMENT TRAP
- CHECK DAM
- ROLLED EROSION CONTROL PRODUCT
- TEMPORARY / PERMANENT SEEDING
- TOPSOILING
- RIPRAP SLOPE PROTECTION
- RIPRAP OUTLET PROTECTION
- MULCHING
- PROTECTING VEGETATION
- WIRE WOVEN SILT FENCE
- BARRIER FENCE
- PERIMETER DRAIN / SWALE
- WATER BAR DIVERSION
- FIBER ROLL
- ORDINARY HIGH WATER (OHW)

GENERAL NOTES:

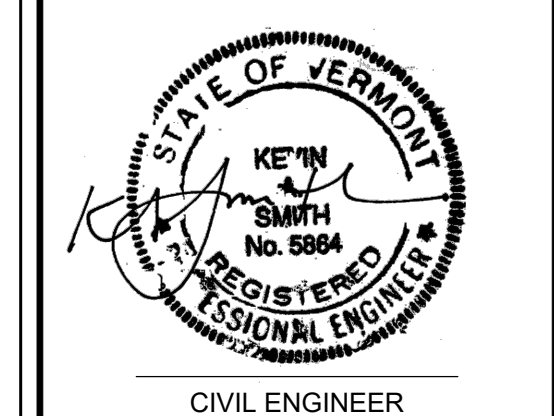
- CONTRACTOR TO KEEP CONSTRUCTION STAGING AND STOCKPILING OF MATERIALS OUT OF WETLANDS AND THEIR BUFFERS.
- CLEAN EQUIPMENT BROUGHT FROM OTHER SITES AWAY FROM THE WETLAND AND ITS BUFFER SO THAT INVASIVE PLANTS AND ANIMALS ARE NOT INTRODUCED.
- USE CLEAN FILL MATERIALS SO INVASIVE PLANTS AND ANIMALS ARE NOT INTRODUCED INTO THE PROJECT SITE.
- USE SEED-FREE MULCH MATERIALS SUCH AS STRAW TO PREVENT INVASIVE PLANT INTRODUCTION.
- SILT FENCE TO BE REMOVED PRIOR TO E2 STONE PLACEMENT
- ACOE PERMITTING REQUIRES THAT WORK BE DONE BETWEEN JULY 1 AND OCTOBER 1



REV	DESCRIPTION	BY	DATE



69 GROVE STREET, RUTLAND, VERMONT
WWW.MARBLEVALLEYENGINEERING.COM



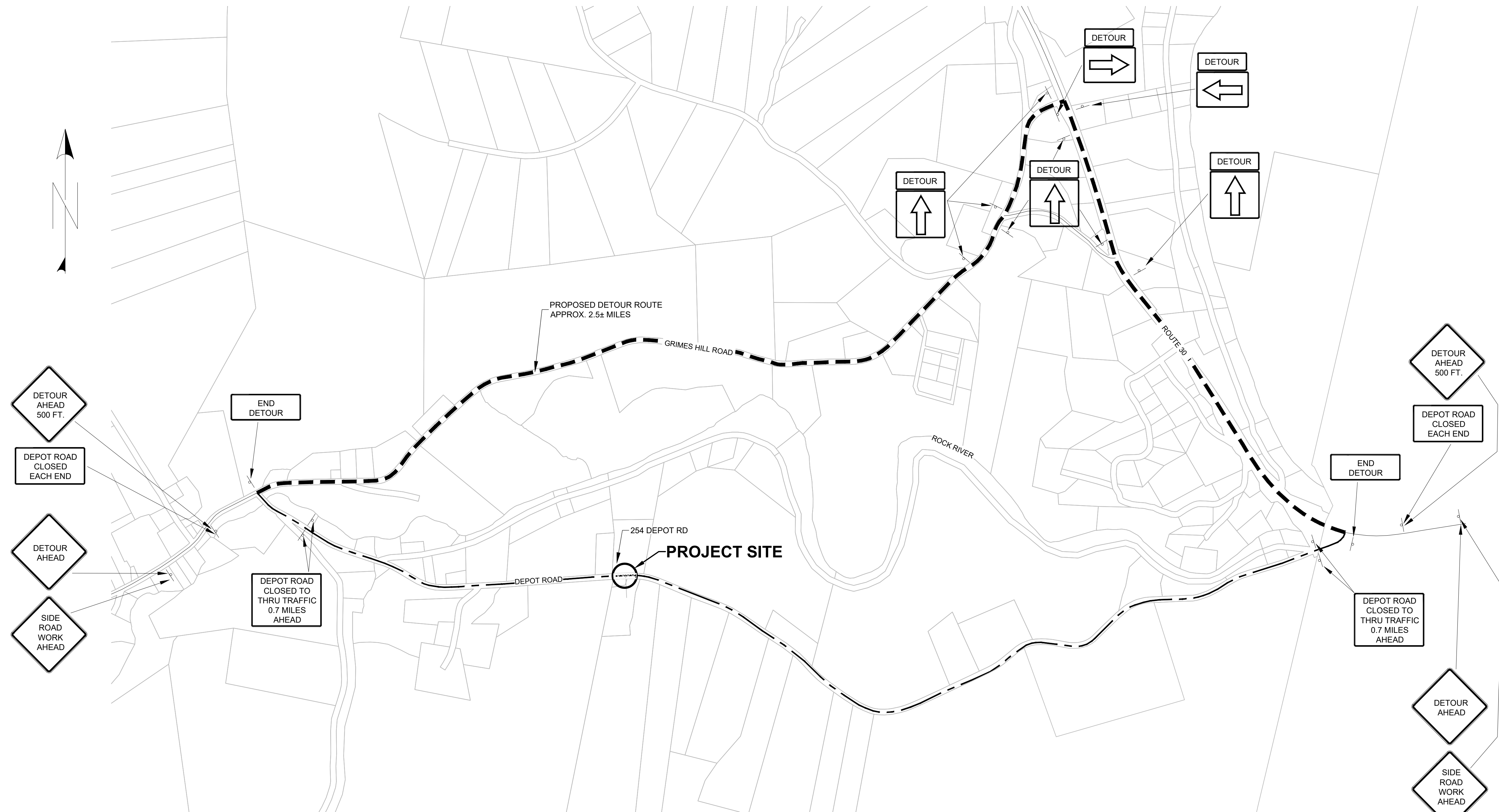
DEPOT ROAD CLASS II BOX CULVERT REPLACEMENT
TAP TA 18(5)
NEWFANE, VERMONT
ENVIRONMENTAL IMPACTS PLAN

PROJECT NO.: M1142
DRAWN BY: REW
SCALE: 1" = 10'
DATE: JANUARY 11, 2023
SHEET: C005

COPYRIGHT © 2022 MARBLE VALLEY ENGINEERING, PC
ALL RIGHTS RESERVED. THIS DOCUMENT OR ANY PART THEREOF MAY NOT BE REPRODUCED OR UTILIZED IN ANY FORM WITHOUT PRIOR WRITTEN PERMISSION FROM MARBLE VALLEY ENGINEERING, PC.

TEMPORARY TRAFFIC CONTROL GENERAL NOTES:

1. TRAFFIC CONTROL DEVICES NOT DETAILED IN THE VERMONT AGENCY OF TRANSPORTATION (VACT) "STANDARD DRAWINGS" OR THE PROJECT PLANS SHALL BE IN ACCORDANCE WITH THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND THE "STANDARD HIGHWAY SIGNS AND MARKINGS" (SHSM) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION (FHWA).
2. CONSTRUCTION SIGNS SHALL BE ERECTED BEFORE THE START OF ANY WORK AND SHALL BE COVERED UNTIL WORK COMMENCES. DURING PERIODS OF INACTIVITY OR UPON COMPLETION OF THE WORK, EACH SIGN SHALL BE ERECTED IN A NEAT AND WORKMANLIKE MANNER.
3. DIAMOND SHAPED CONSTRUCTION SIGNS SHALL BE 48 INCH BY 48 INCH.
4. CONSTRUCTION SIGN COVERS SHALL CONSIST OF A PANEL PAINTED FLAT BLACK, THE SAME SIZE AS THE SIGN IT COVERS. THE PANEL SHALL BE OF WOOD, PLYWOOD, HARDBOARD OR ANY MATERIAL SATISFACTORY TO THE ENGINEER. NO MATERIAL WILL BE APPROVED THAT WILL DETERIORATE BY EXPOSURE TO THE WEATHER DURING THE PROJECT. MOUNTING OF THE PANEL SHALL BE DONE IN SUCH A WAY AS NOT TO DAMAGE THE SIGN FACE MATERIAL.
5. SIGNS SHALL BE MAINTAINED IN A CLEAN AND LEGIBLE CONDITION SATISFACTORY TO THE ENGINEER. THEY SHALL BE TRUE PLUMB AND LEVEL, AND ALWAYS PRESENT A NEAT APPEARANCE. DAMAGED, DEFACED OR DIRTY SIGNS SHALL BE REPAIRED, CLEANED OR REPLACED AS ORDERED BY THE ENGINEER.
6. NO CROSS-BRACING OR BACK-BRACING TO KEEP POSTS PLUMB WILL BE ALLOWED. CONCRETE FOUNDATIONS, COLLARS OR SOIL BEARING PLATES ARE NOT PERMITTED.
7. CONSTRUCTION SIGNS INSTALLED ON POSTS SHALL BE SET SECURELY IN THE GROUND ON TWO POSTS. THE BOTTOM OF A SIGN SHALL BE AT LEAST FIVE FEET ABOVE THE EDGE OF PAVEMENT AND THE NEAREST EDGE OF A SIGN SHALL BE AT LEAST SIX FEET OUTSIDE THE SHOULDER POINT, FOUR FEET OUTSIDE GUARDRAIL, OR TWO FEET OUTSIDE CURBING OR SIDEWALK. THE INSTALLATION OF SIGNS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER. IN URBAN AREAS, THE BOTTOM OF THE SIGN SHALL BE AT LEAST SEVEN FEET ABOVE THE SIDEWALK OR EDGE OF PAVEMENT, WHICHEVER IS HIGHER.
8. PORTABLE SIGNS SHALL BE PLACED ON THE EDGE OF ROADWAY AND A MINIMUM OF ONE FOOT ABOVE THE TRAVELED WAY. ALL VEGETATION THAT INTERFERES WITH VISIBILITY OF THE SIGNS SHALL BE REMOVED. WHEN PLACED BEHIND GUARDRAIL, THE BOTTOM OF THE SIGN FACE SHALL BE ABOVE THE TOP OF THE GUARDRAIL.
9. SIGNS SHALL BE REMOVED UPON COMPLETION OF THE WORK AT THE DISCRETION OF THE ENGINEER.
10. ROLL UP CONSTRUCTION SIGNS SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING THE "AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS" (AASHTO) M 268 ["AMERICAN SOCIETY FOR TESTING AND MATERIALS" (ASTM) D 4956] TYPE VI AND TYPE VII UNLESS OTHERWISE NOTED.
11. SOLID SUBSTRATE CONSTRUCTION SIGNS SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING THE "AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS" (AASHTO) M 268 ["AMERICAN SOCIETY FOR TESTING AND MATERIALS" (ASTM) D 4956] TYPE VIII OR IX REQUIREMENTS UNLESS OTHERWISE NOTED.
12. WHERE CONSTRUCTION SIGN INSTALLATIONS ARE NOT PROTECTED BY GUARDRAIL OR OTHER APPROVED TRAFFIC BARRIERS, ALL SIGN STANDS AND POST INSTALLATIONS SHALL MEET "NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM" (NCHRP) REPORT 350 OR THE AASHTO "MANUAL FOR ASSESSING SAFETY HARDWARE" (MASH). THE APPROPRIATE RESOURCE SHALL BE DETERMINED AS DESCRIBED IN THE MASH PUBLICATION. NO SIGN POSTS SHALL EXTEND OVER THE TOP OF THE SIGN INSTALLED ON SAID POSTS. WHEN ANCHORS ARE INSTALLED, STUBS SHALL NOT BE GREATER THAN FOUR INCHES ABOVE EXISTING GROUND.
13. ROADWAY AND SHOULDER WIDTHS DEPICTED MAY VARY.
14. THESE DRAWINGS ARE INTENDED TO SERVE AS VTRANS STANDARD OPERATING PROCEDURE. IT IS NOTED THAT COMPONENT PARTS OF A TEMPORARY TRAFFIC CONTROL WORK ZONE MAY BE MODIFIED DUE TO FIELD CONDITIONS AT THE DISCRETION OF THE ENGINEER.
15. ALL REASONABLE EFFORTS SHALL BE MADE TO ACCOMMODATE PEDESTRIAN AND BICYCLE TRAVEL. TRAFFIC CONTROL PLANS SHOULD REPLICATE THE EXISTING PEDESTRIAN PATHWAY AS NEARLY AS PRACTICAL. THIS CAN INCLUDE BUT IS NOT LIMITED TO A DEDICATED PEDESTRIAN ESCORT (NOT A FLAGGER ON DUTY), SIGNAGE, AND PEDESTRIAN CHANNELIZING DEVICE WALKWAYS THAT MEET ADA REQUIREMENTS OR HAVE BICYCLIST FOLLOW THE RULES OF THE ROAD JUST LIKE A MOTORIST. ALSO, TO ENSURE THAT OBSTACLES, EQUIPMENT, CONSTRUCTION MATERIALS, TRAFFIC CONTROL DEVICES, ETC. DO NOT ENCROACH INTO THE BICYCLE PATH OF TRAVEL AND THAT THESE ROUTES ARE FREE OF RUTS, SAND AND MUD TO PREVENT CYCLISTS' CRASHES.



PROPOSED TRAFFIC DETOUR PLAN
SCALE: 1" = 500'

NOTES:

1. CONTRACTOR TO COORDINATE ACCESS THROUGH THE WORK ZONE FOR EMERGENCY VEHICLES OR COORDINATE EMERGENCY ROUTES PRIOR TO THE START OF CONSTRUCTION
2. COMMUNICATIONS AND ACCOMMODATIONS FOR POSTAL DELIVERIES, NEWSPAPER ROUTES, TRASH SERVICES, AND/OR OTHER DELIVERY SERVICES INTERRUPTED BY THE PROJECT OR DETOUR SHALL BE COMMUNICATED WITH THE PROPER CONTACTS BY THE CONTRACTOR.
3. WHEN SCHOOL IS IN SESSION, SCHOOL BUS STOP ACCOMMODATIONS ARE REQUIRED. LOCATIONS SHALL BE COORDINATED WITH THE LOCAL SCHOOL TRANSPORTATION COORDINATOR. ADDITIONAL FLAGGERS WILL BE STATIONED AT THESE LOCATIONS DURING TYPICAL MORNING PICK-UP AND AFTERNOON DROP-OFF TIME PERIODS WHILE WORK IS PERFORMING IN THESE AREAS.

PROJECT COORDINATION NOTE:
THIS PROJECT SHALL BE COORDINATED WITH JAY WILSON, NEWFANE ROAD FOREMAN. ALL IN STREAM WORK FOR THIS PROJECT MUST BE DONE BETWEEN JULY 1 AND OCTOBER 1.

DETOUR NOTE:
DETOUR SIGNS PLACED WITHIN VT30 ROW WILL REQUIRE STATE HIGHWAY ACCESS WORK PERMIT (19 VSA 1111), SECTION 1111.

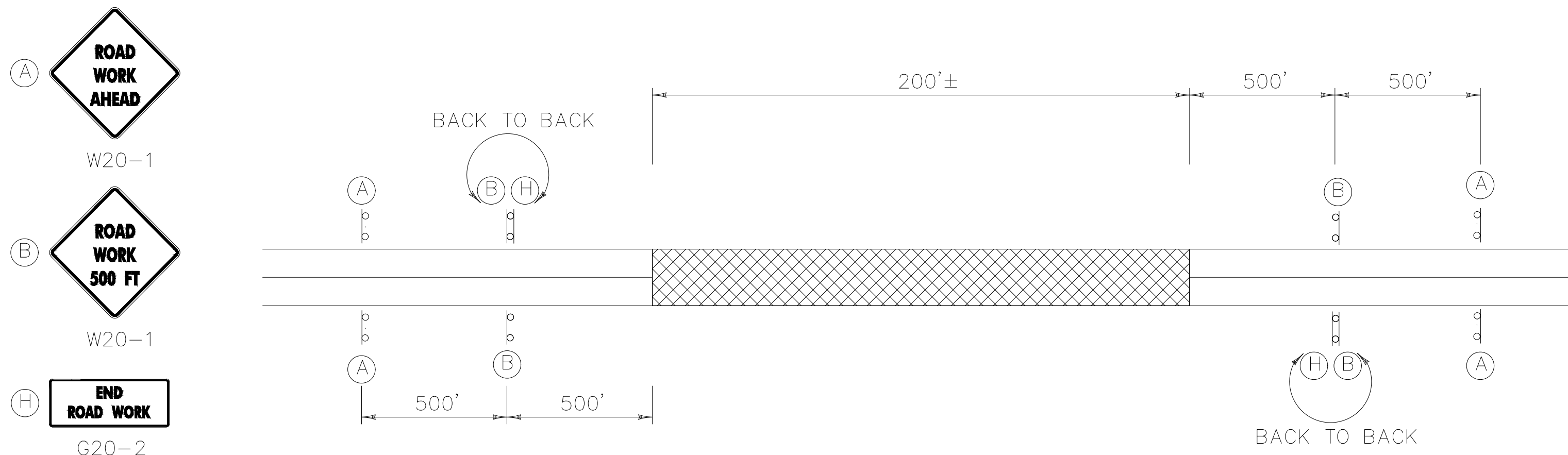
TRAFFIC CONTROL GENERAL NOTE:
(FROM VTRANS TRANSPORTATION DATA MANAGEMENT SYSTEM (2018))

AADT: 1366
EB: 680
WB: 686

SPEED
40MPH

PAVING CRITERIA
PAVING MIX SHALL BE 58-28 TYPES III & IVS
QUALITY ASSURANCE PROGRAM LEVEL: 2

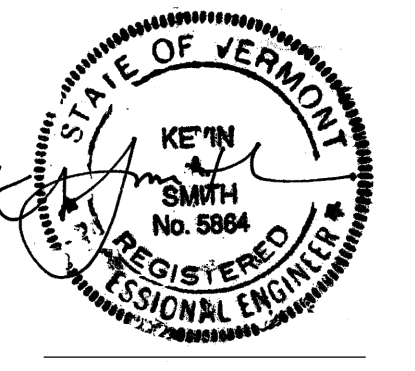
PT#	NORTHING	EASTING	ELEV	DESCRIPTION
136	162619.6633	1596393.8967	546.82	SPIKE IN POLE
155	162621.4308	156263.7067	550.29	IPF TO GRADE
181	162574.7244	1596401.3703	547.49	IRF TO GRADE



REV.	DESCRIPTION	BY	DATE



69 GROVE STREET, RUTLAND, VERMONT
WWW.MARBLEVALLEYENGINEERING.COM



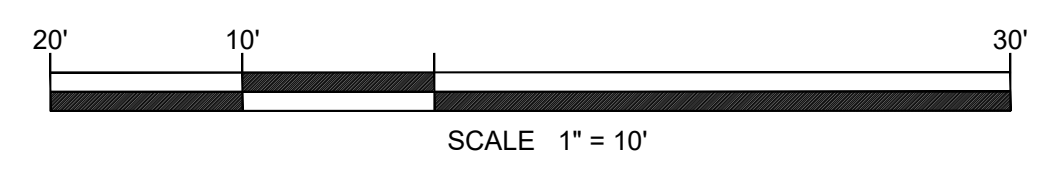
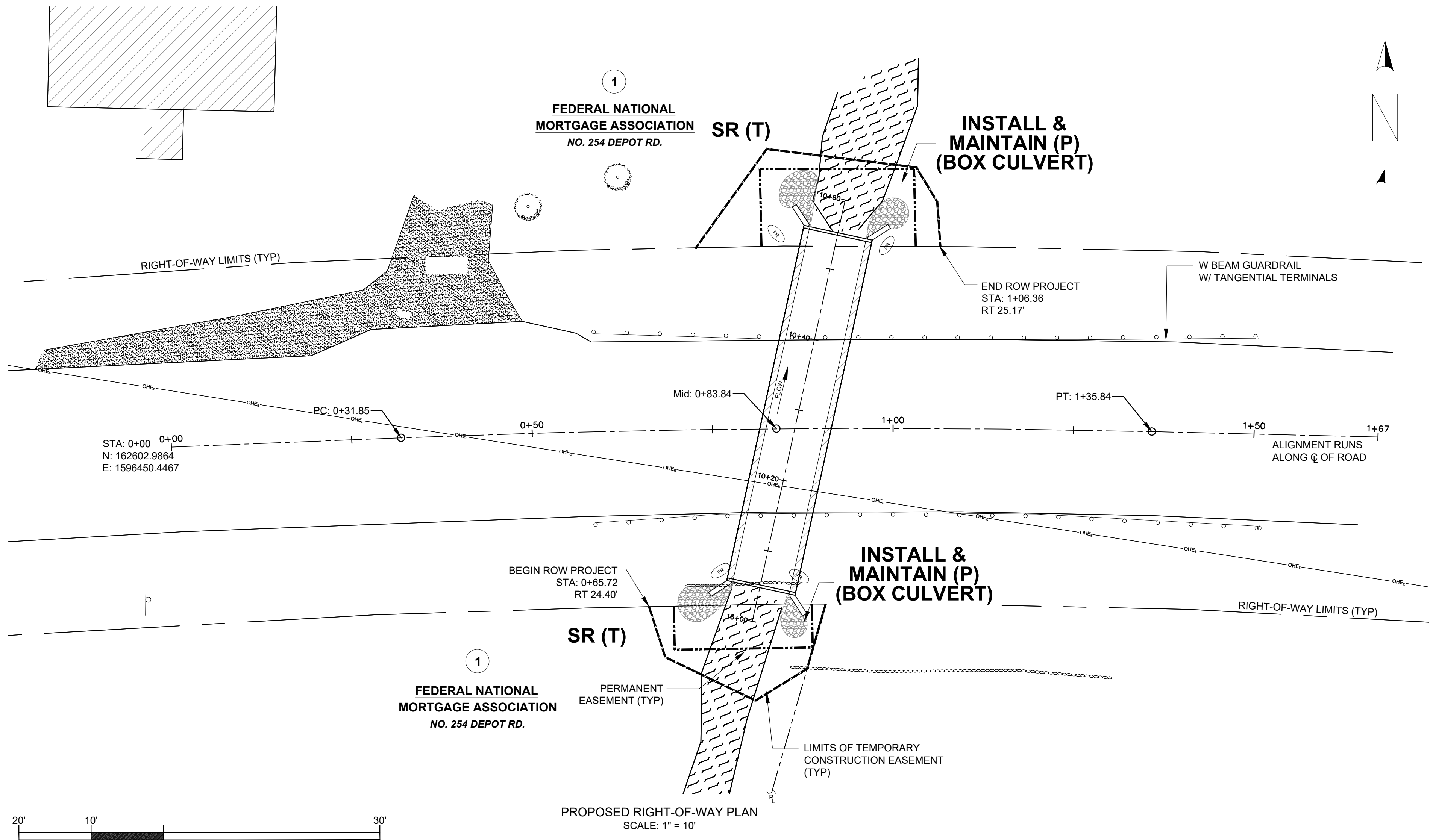
CIVIL ENGINEER

**DEPOT ROAD CLASS II BOX CULVERT REPLACEMENT
TAP TA18(5)
NEWFANE, VERMONT
TRAFFIC CONTROL PLAN**

PROJECT NO.: M1142
DRAWN BY: REW
SCALE: AS NOTED
DATE: JANUARY 11, 2023

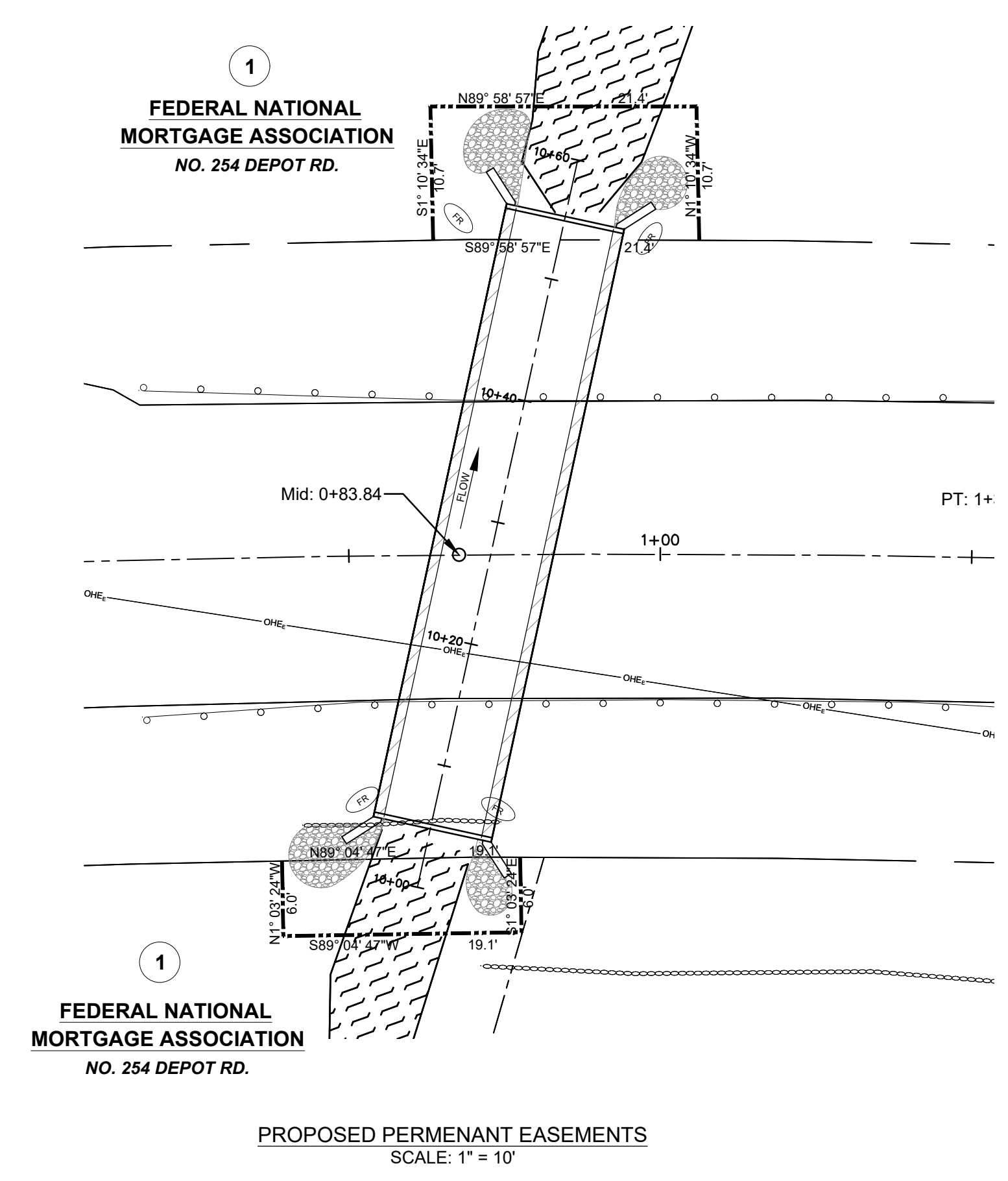
SHEET: C006

COPYRIGHT © 2023, MARBLE VALLEY ENGINEERING, PC
ALL RIGHTS RESERVED. NO PARTS OF THIS DOCUMENT OR
UTILIZED IN ANY FORM WITHOUT PROPER WRITTEN PERMISSION FROM MARBLE VALLEY ENGINEERING, PC.



LEGEND

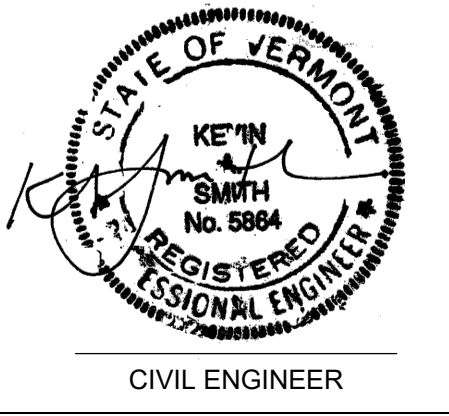
- PROPERTY LINE
- EXISTING RIGHT OF WAY
- TEMPORARY EASEMENT LINE
- PERMANENT EASEMENT LINE
- o o o o o GUARDRAIL



REV	DESCRIPTION	BY	DATE
1	UPDATE OWNER INFO	RML	5/27/21



69 GROVE STREET, RUTLAND, VERMONT
WWW.MARBLEVALLEYENGINEERING.COM



DEPOT ROAD CLASS II BOX CULVERT REPLACEMENT
TAP TA18(5)
NEWFANE, VERMONT
RIGHT-OF-WAY PLAN

PROJECT NO.: M1142
DRAWN BY: REW
SCALE: AS NOTED
DATE: JANUARY 11, 2023
SHEET: C007

COPYRIGHT © 2020 MARBLE VALLEY ENGINEERING, PC
ALL RIGHTS RESERVED OR
UTILIZED IN ANY FORM WITHOUT PROPER WRITTEN PERMISSION FROM MARBLE VALLEY ENGINEERING, PC

RIGHT - OF - WAY DETAIL SHEET

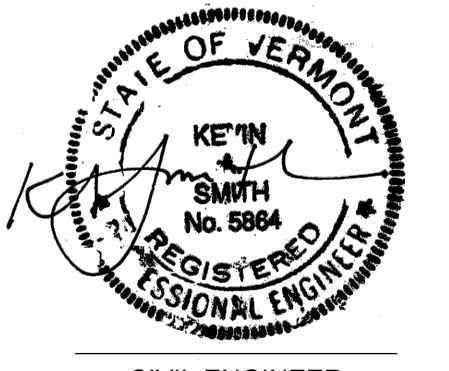
TABLE OF PROPERTY ACQUISITION

TABLE OF REVISIONS

PARCEL NO.	PROPERTY OWNER	ROW LAYOUT NO.	BEGINNING STATION	ENDING STATION	TYPE	T / P	AREA ±	RECORDING DATA				REMARKS	REVISION NO.	ROW SET SHEET #	DESCRIP-TION	DATE		
								TITLE	DATE	TOWN / CITY	BOOK						PAGE	
1	FEDERAL NATIONAL MORTGAGE ASSOCIATION	C007	0+72.88 LT	1+06.36 LT	SLOPE	T	374 SF											
			0+81.78 LT	1+03.05 LT	INSTALL & MAINTAIN	P	230 SF											
			0+65.72 RT	0+90.56 RT	SLOPE	T	247 SF											
			0+69.28 RT	0+88.61 RT	INSTALL & MAINTAIN	P	115 SF											
254 DEPOT RD																		



69 GROVE STREET, RUTLAND, VERMONT
WWW.MARBLEVALLEYENGINEERING.COM

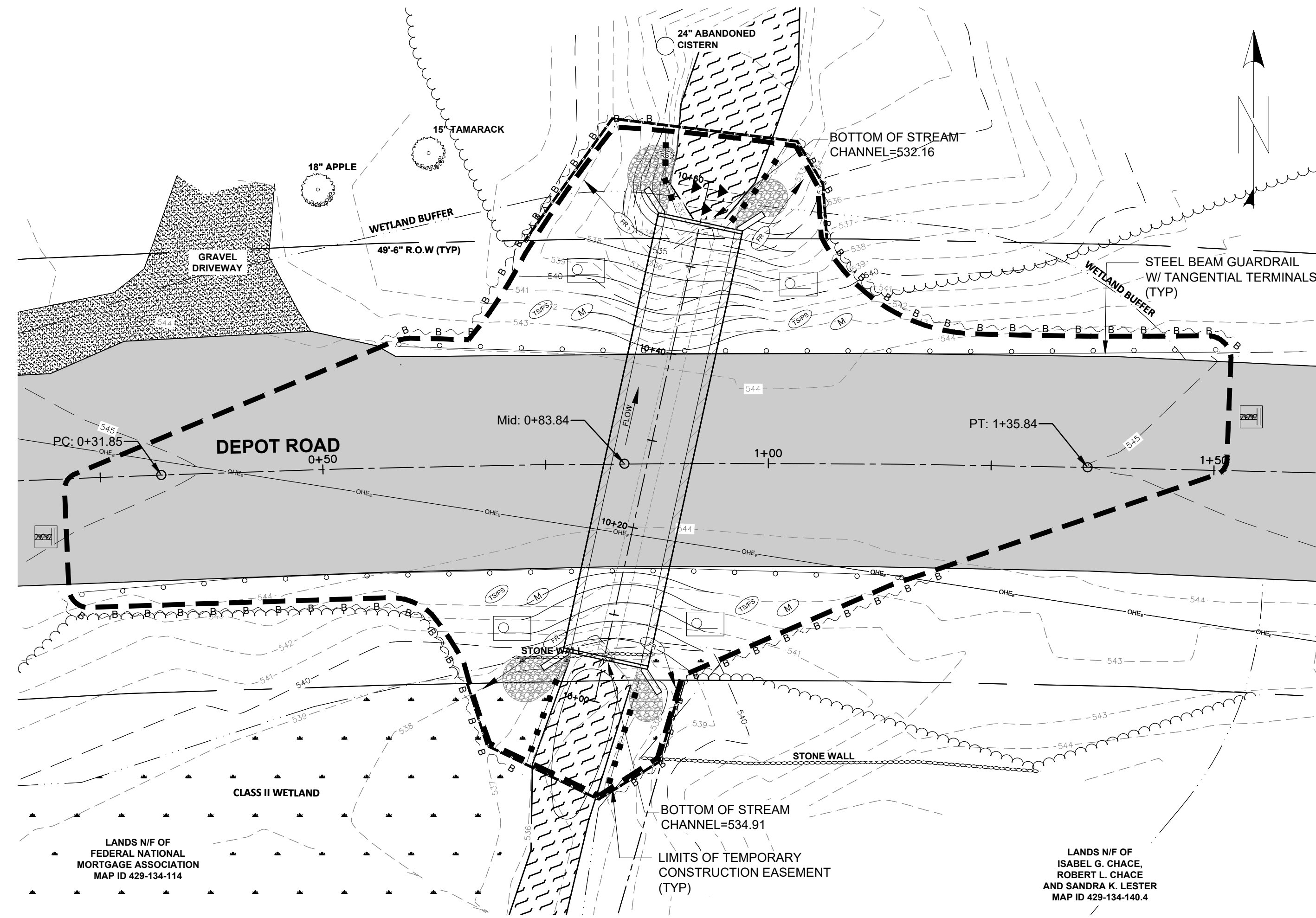


**DEPOT ROAD CLASS II BOX CULVERT REPLACEMENT
TAP TA18(5)
NEWFANE, VERMONT**

RIGHT-OF-WAY DETAIL SHEET

PROJECT NO.: M1142
DRAWN BY: REW
SCALE: AS NOTED
DATE: JANUARY 11, 2023
SHEET: C008

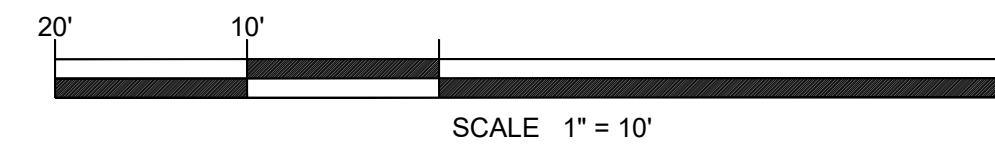
BY: _____ DATE: _____
 DESCRIPTION: _____
 REV: _____
 COPYRIGHT © 2022, MARBLE VALLEY ENGINEERING, PC
 ALL RIGHTS RESERVED. NO REUSE, REPRODUCTION, OR
 UTILIZATION IN ANY FORM WITHOUT WRITTEN PERMISSION FROM MARBLE VALLEY ENGINEERING, PC.



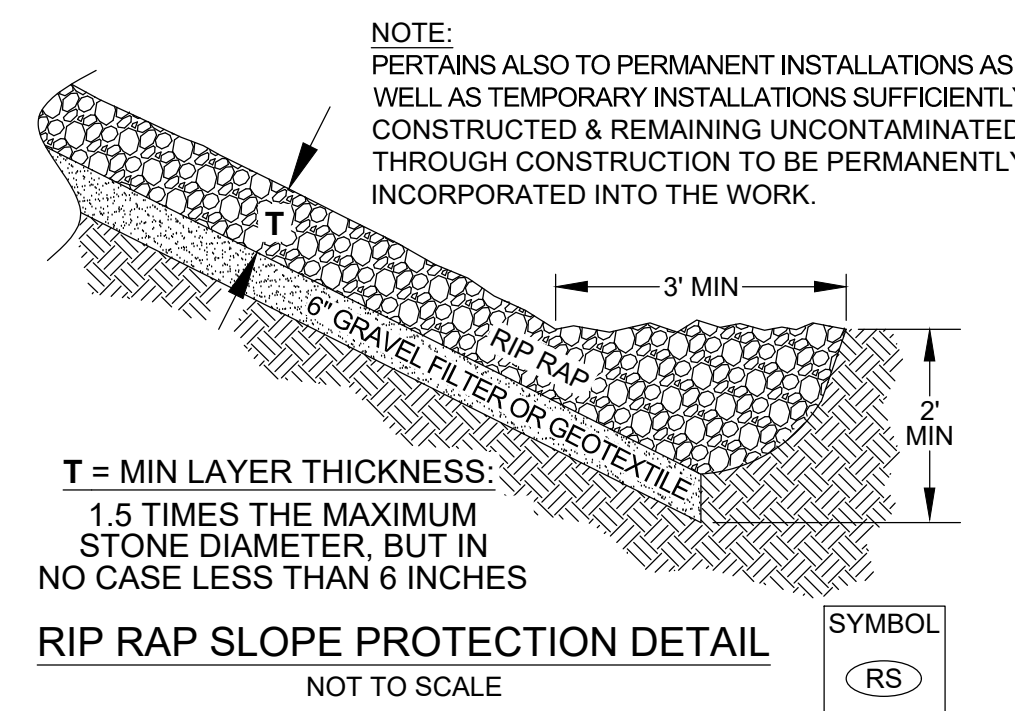
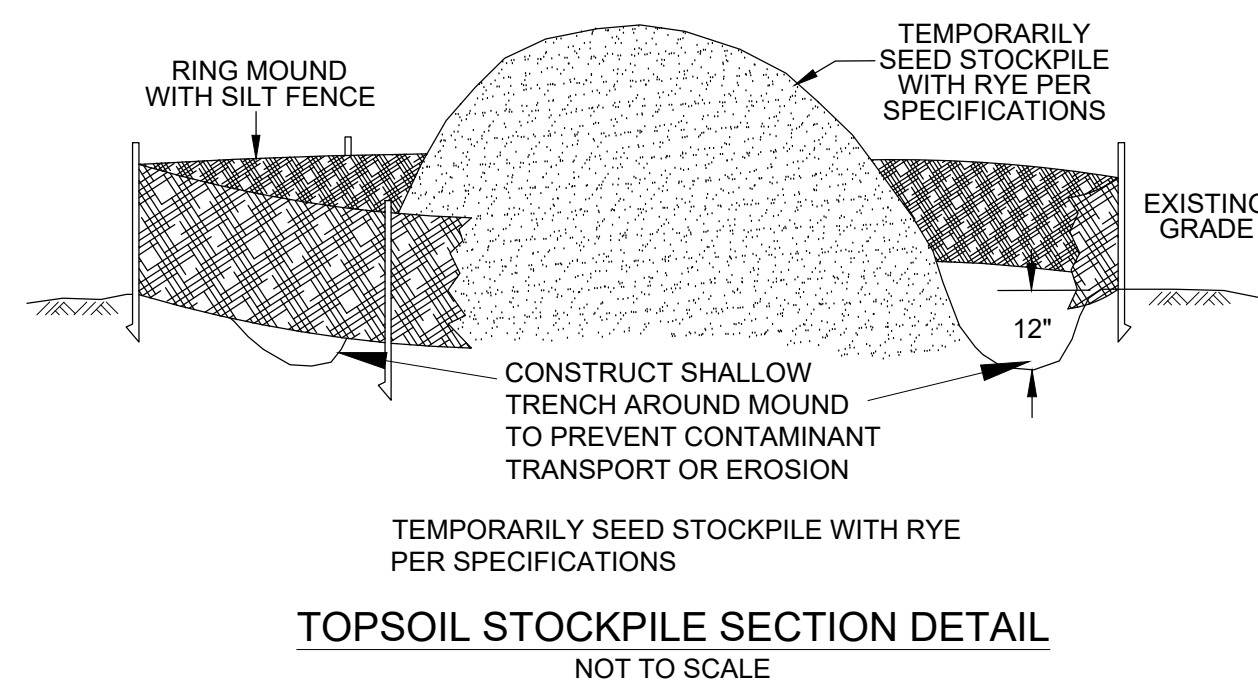
EROSION CONTROL PLAN
SCALE: 1" = 10'

EROSION PREVENTION & SEDIMENT CONTROL LEGEND:

STABILIZED CONSTRUCTION ENTRANCE	
DUST CONTROL	
STONE OUTLET SEDIMENT TRAP	
CHECK DAM	
ROLLED EROSION CONTROL PRODUCT	
TEMPORARY / PERMANENT SEEDING	
TOPSOILING	
RIPRAP SLOPE PROTECTION	
RIPRAP OUTLET PROTECTION	
MULCHING	
PROTECTING VEGETATION	
WIRE WOVEN SILT FENCE	
BARRIER FENCE	
PERIMETER DRAIN / SWALE	
WATER BAR DIVERSION	
FIBER ROLL	



NOTE:
1. SILT FENCE TO BE REMOVED PRIOR TO E2 STONE PLACEMENT.



SEED MIX:

THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER ON WHICH SEED MIX TO USE. CONSERVATION MIX SHALL BE USED UNLESS OTHERWISE NOTED FOR BUFFER AREAS. FOR WETLAND AREAS, MIX SHALL BE:

BOTANICAL NAME	COMMON NAME
22.00% SCHIZACHYRIUM SCOPARIUM, FIG PA ECOTYPE	LITTLE BLUESTEM, FIG PA ECOTYPE
14.00% CHASMANTHIUM LATIFOLIUM, PA/VA ECOTYPE BLEND	RIVER OATS, PA/VA ECOTYPE BLEND
10.00% ELYMUS VIRGINICUS, PA ECOTYPE	VIRGINIA WILD RYE, PA ECOTYPE
5.00% CAREX SQUARROSA, VA ECOTYPE	SQUARROSE SEDGE, VA ECOTYPE
5.00% CAREX VULPINOIDEA, PA ECOTYPE	FOX SEDGE, PA ECOTYPE
5.00% ECHINACEA PURPUREA	PURPLE CONEFLOWER
5.00% LIATRIS SPICATA	MARSH (DENSE) BLAZING STAR (SPIKED GAYFEATHER)
5.00% RUDBECKIA HIRTA, CP NC ECOTYPE	BLACK EYED SUSAN, CP NC ECOTYPE
4.00% PENSTEMON DIGITALIS, PA ECOTYPE	TALL WHITE BEARD TONGUE, PA ECOTYPE
4.00% SENNA HEBECARPA (CASSIA H.), VA & WV ECOTYPE	WILD SENNA, VA & WV ECOTYPE
3.00% ZIZIA AUREA	GOLDEN ALEXANDERS
2.00% ANDROPOGON GERARDII, 'NIAGARA'	BIG BLUESTEM, 'NIAGARA'
2.00% ASCLEPIAS INCARNATA, WI ECOTYPE	SWAMP MILKWEEED, WI ECOTYPE
2.00% ASTER NOVAE-ANGLIAE (SYMPHYOTRICHUM N.) PA ECOTYPE	NEW ENGLAND ASTER, PA ECOTYPE
2.00% BAPTISIA AUSTRALIS, S WV ECOTYPE	BLUE FALSE INDIGO, S WV ECOTYPE
2.00% COREOPSIS LANCEOLATA, CP NC ECOTYPE	LANCE LEAVED COREOPSIS, CP NC ECOTYPE
2.00% MONARDA MEDIA, PA ECOTYPE	PURPLE BERGAMOT, PA ECOTYPE
2.00% TRADESCANTIA OHIENSIS, IA ECOTYPE	OHIO SPIDERWORT, IA ECOTYPE
2.00% VERBENA HASTATA	BLUE VERVAIN
1.00% AGROSTIS PERENNANS, APB	AUTUMN BENTGRASS, APB
1.00% GEUM LACINIATUM, PA ECOTYPE	ROUGH AVENS, PA ECOTYPE

SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR:

ALL SEED MIXTURES: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.

FERTILIZER AND LIMESTONE: SHALL FOLLOW RATES SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER.

HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, ACHIEVE 90% GROUND COVER OR AS DIRECTED BY THE ENGINEER.

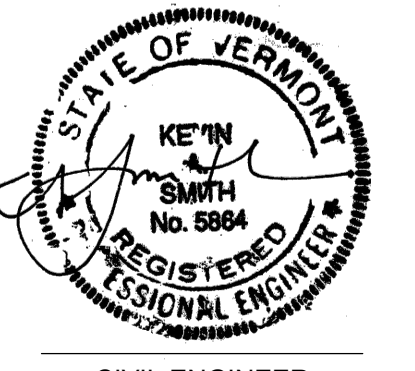
HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE, THE SITE CONDITIONS AND THE TYPE OF HYDROSEED PROPOSED FOR USE WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED.

TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

REV	DESCRIPTION	BY	DATE



69 GROVE STREET, RUTLAND, VERMONT
WWW.MARBLEVALLEYENGINEERING.COM



CIVIL ENGINEER

DEPOT ROAD CLASS II BOX CULVERT REPLACEMENT
TAP TA18(5)
NEWFANE, VERMONT
EPSC MEASURES & DETAILS

PROJECT NO.: M1142
DRAWN BY: REW
SCALE: AS NOTED
DATE: JANUARY 11, 2023
SHEET: C009

COPYRIGHT © 2022, MARBLE VALLEY ENGINEERING, PC
ALL RIGHTS RESERVED. NO REUSE OR REPRODUCTION OF THIS DOCUMENT OR UTILIZED IN ANY FORM WITHOUT PROPER WRITTEN PERMISSION FROM MARBLE VALLEY ENGINEERING, PC.