

CONSTRUCTION NOTES

GENERAL NOTES

1. ALL ITEMS SHALL BE CONSTRUCTED TO THE DIMENSIONS AND ELEVATIONS SHOWN ON THE DRAWINGS. ANY CHANGES SHALL BE APPROVED BY THE NRCS REPRESENTATIVE ON SITE.
2. ALL PERMITS, EASEMENTS, AND RIGHTS OF WAY ARE THE RESPONSIBILITY OF THE LANDOWNER. PERMITS MAY BE REQUIRED FOR STREAM ALTERATION. CONTACT THE FOLLOWING OFFICES:

A. VT DEC (STREAM ALTERATION DEPARTMENT)

B. US ARMY CORPS OF ENGINEERS OFFICE

C. VT ANR FISH AND WILDLIFE DEPARTMENT
3. THE CULVERT CROSSING SHALL BE INSTALLED IN ACCORDANCE WITH THE VERMONT AGENCY OF NATURAL RESOURCES DEPARTMENT OF ENVIRONMENTAL CONSERVATION STREAM ALTERATION RULES AND REGULATIONS.
4. IT IS THE EXCAVATION CONTRACTORS RESPONSIBILITY TO CALL "DIG SAFE" AND TO COMPLY WITH ALL VERMONT LAWS AND REGULATIONS REGARDING THE LOCATION AND WORK AROUND UNDERGROUND UTILITIES. DIG SAFE (888) 344-7233.
5. ALL CONSTRUCTION ACTIVITIES SHALL BE DONE IN A MANNER THAT MINIMIZES SEDIMENT FROM ENTERING ANY WATER BODIES, INCLUDING DRAINAGE WAYS, SEE VT D.E.C. SEDIMENT AND EROSION CONTROL HANDBOOKS.
6. IF THE CHANNEL HAS FLOWING WATER, THE FLOW SHALL BE DIVERTED WITH SAND BAGS OR OTHER METHOD TO ALLOW WORK WITHIN THE BED OF THE CHANNEL TO MINIMIZE POLLUTION.
7. CONSTRUCTION MAY NOT BEGIN UNTIL THE CONTRACTOR, LANDOWNER, AND NRCS HAVE A PRE-CONSTRUCTION MEETING IN ORDER TO DISCUSS THE DETAILS OF THE PROJECT.
8. IT SHALL BE THE CONTRACTOR'S AND LANDOWNER'S RESPONSIBILITY TO NOTIFY NRCS AT LEAST TWO DAYS IN ADVANCE OF:

A. START OF CONSTRUCTION.

EARTHWORK NOTES:

9. ALL SOD, MANURE, & ORGANIC MATTER SHALL BE REMOVED TO REVEAL CLEAN SUBGRADE. ANY TOPSOIL SHOULD BE STRIPPED AND STOCKPILED TO BE USED AS FINISH ON DISTURBED AREAS.
10. FILL SHALL NOT CONTAIN MANURE, VEGETATION, SOD, FROZEN MATERIAL, BRUSH, ROOTS, STONES LARGER THAN 6 INCHES IN DIAMETER, OR OTHER OBJECTIONABLE MATERIAL.
11. BEDDING, HAUNCHING, OR FILL SHALL NOT BE PLACED ON FROZEN SURFACES.
12. BEDDING, HAUNCHING, OR FILL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED 9 INCHES PRIOR TO COMPACTION.
13. THE MOISTURE CONTENT OF THE FILL SHALL BE SUFFICIENT TO OBTAIN FIRM COMPACTION.
14. CULVERT SHALL BE PROPERLY SUPPORTED, COMPACTING UNDERNEATH (HAUNCHING) TO HALF OF THE DIAMETER OF THE CULVERT. HAUNCHING MATERIAL SHALL FOLLOW THE GRADATION REQUIREMENTS AS SHOWN IN THE TABLE ON THE SECTION DETAILS SHEET.
15. WHERE NOT SPECIFIED IN THE DETAILS, COMPACTION SHALL BE ACCOMPLISHED BY THE ROUTING OF CONSTRUCTION EQUIPMENT OVER THE FILL WITH NOT LESS THAN 2 PASSES OF THE CONSTRUCTION EQUIPMENT. ONE "PASS" SHALL BE CONSIDERED SUCH THAT THE ENTIRE SURFACE OF EACH LAYER WILL BE TRAVERSED BY NOT LESS THAN 1 TRACK OF THE CONSTRUCTION EQUIPMENT.

CULVERT NOTES:

16. THERE SHALL BE A MINIMUM COVER OVER THE CULVERT OF 1' OR THE MANUFACTURER'S REQUIREMENTS, WHICHEVER IS GREATER.
17. HEADWALLS OR STONE ARMORING SHALL BE INSTALLED AT BOTH THE INLET AND OUTLET OF THE CULVERT.
18. A STONE ARMORING SHALL BE INSTALLED AT THE OUTLET OF THE CULVERT TO PREVENT SCOURING.

FINISH WORK NOTES:

19. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE SEEDED AND MULCHED ACCORDING TO CONSTRUCTION SPECIFICATION #52.



LOCATION MAP
SCALE: _____

BILL OF MATERIALS

ITEM #	ITEM	QUANTITY	UNIT	CONSTRUCTION SPECIFICATIONS
1.	SITE PREPARATION	FOR	JOB	1, 5
2.	EXCAVATION		C.Y.	11
3.	HAUNCHING & BEDDING MATERIAL		C.Y.	11
4.	BACKFILL MATERIAL		C.Y.	11
5.	GEOTEXTILE		S.Y.	54
6.	BASE MATERIAL		C.Y.	11
7.	SURFACING MATERIAL		C.Y.	11
8.	_____” ROCK RIPRAP		C.Y.	44
9.	_____” CULVERT PIPE		L.F.	41
10.	SEEDING & MULCHING		ACRE	52



Date

1/1/2021

Designed

Drawn

Checked

Approved by

VT STANDARD DRAWING

USDA

United States Department of Agriculture

Natural Resources Conservation Service

HAZARD CLASS

LOW

JOB CLASS

STREAM CROSSING-CULVERT

CONSTRUCTION NOTES & BILL OF MATERIALS

VERMONT

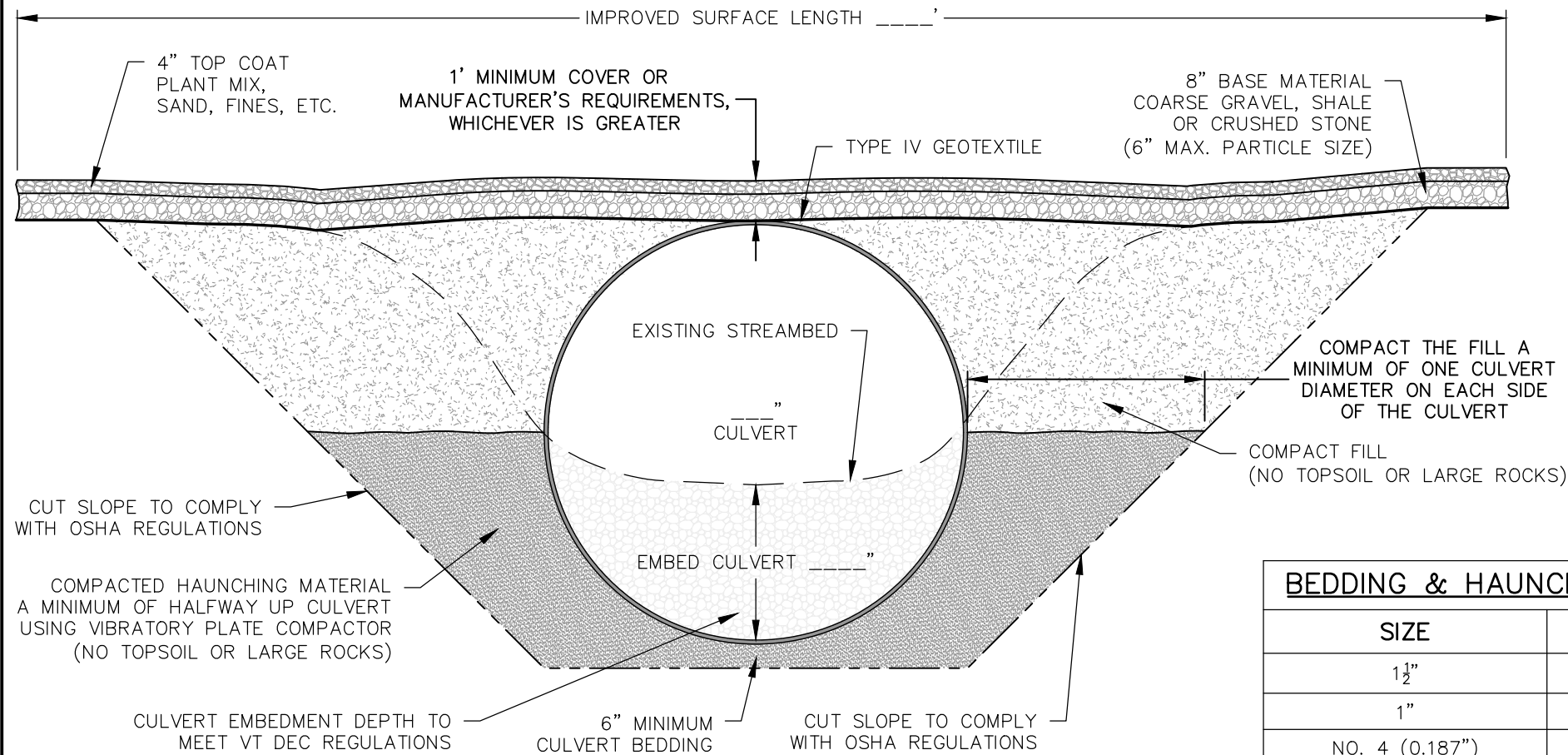
File Name

Drawing Name

VT-578-001-2021

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<div>PLAN VIEW</div>										<div><div>Designed</div><div>Drawn</div><div>Checked</div><div>Approved by</div></div> <div><div>VT STANDARD DRAWING</div><div>1/1/2021</div></div>	
<div>PROFILE:</div> <div></div>										<div><div>USDA</div><div>United States Department of Agriculture</div><div>Natural Resources Conservation Service</div></div>	
<div>HAZARD CLASS</div> <div>LOW</div>										<div>JOB CLASS</div>	
<div>STREAM CROSSING-CULVERT</div> <div>PLAN – PROFILE</div>										<div>VERMONT</div>	
<div>File Name</div>										<div>Drawing Name</div> <div>VT-578-001-2021</div>	
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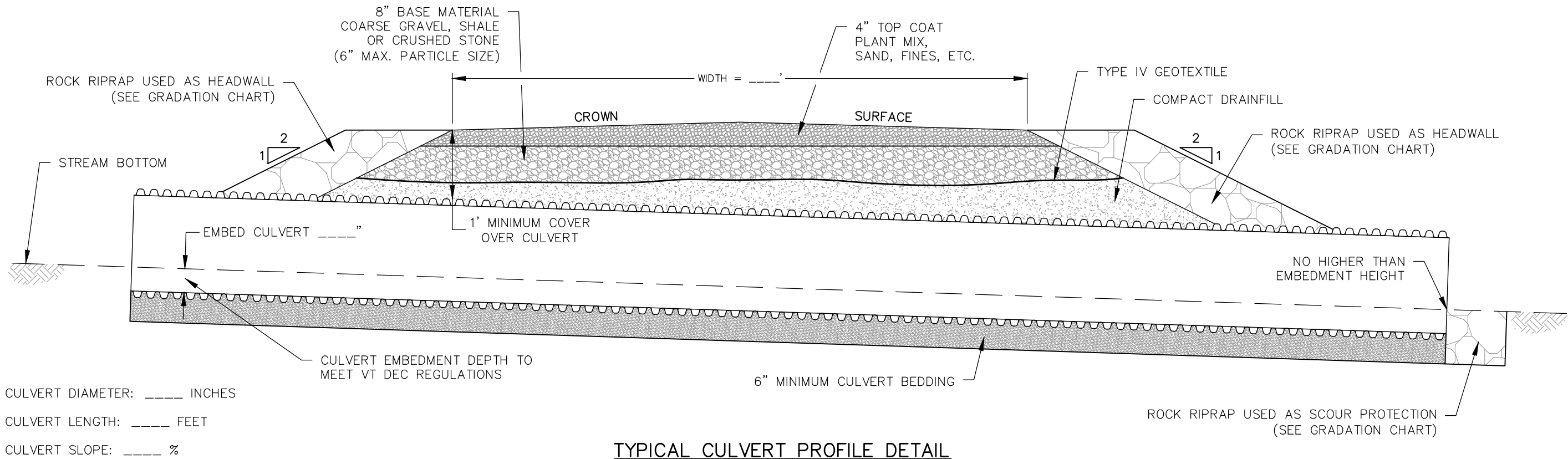


TYPICAL CULVERT CROSS-SECTION DETAIL
NOT TO SCALE

BEDDING & HAUNCHING GRADATION	
SIZE	PERCENT PASSING
1½"	100
1"	90 TO 100
NO. 4 (0.187")	45 TO 65
NO. 100 (0.0058")	0 TO 15
NO. 200 (0.0029)	0 TO 12

RIPRAP GRADATION	
SIZE (IN)	PERCENT PASSING
	100
	70
	50
	30
	0

TYPE IV GEOTEXTILE PROPERTIES		
PROPERTY	WOVEN	NONWOVEN
TENSILE STRENGTH	150 LBS MIN	120 LBS MIN
BURSTING STRENGTH	250 PSI	210 PSI MIN
ELONGATION (GRAB TEST)	35% MAX	100 % MAX
PUNCTURE	60 LBS	50 LBS
UV	75%	70%
APPARENT OPENING SIZE (AOS)	#100 SIEVE MIN	#40 SIEVE MAX
PERCENT OPEN AREA	4.0% MIN	—
PERMITIVITY	—	0.30 L/SEC MIN



TYPICAL CULVERT PROFILE DETAIL
NOT TO SCALE

Date

1/1/2021

Designed

Drawn

Checked

Approved by

United States
Department of
Agriculture

USDA

Natural Resources
Conservation Service

HAZARD CLASS
LOW

JOB CLASS

STREAM CROSSING-CULVERT
SECTION DETAILS

VERMONT

File Name

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