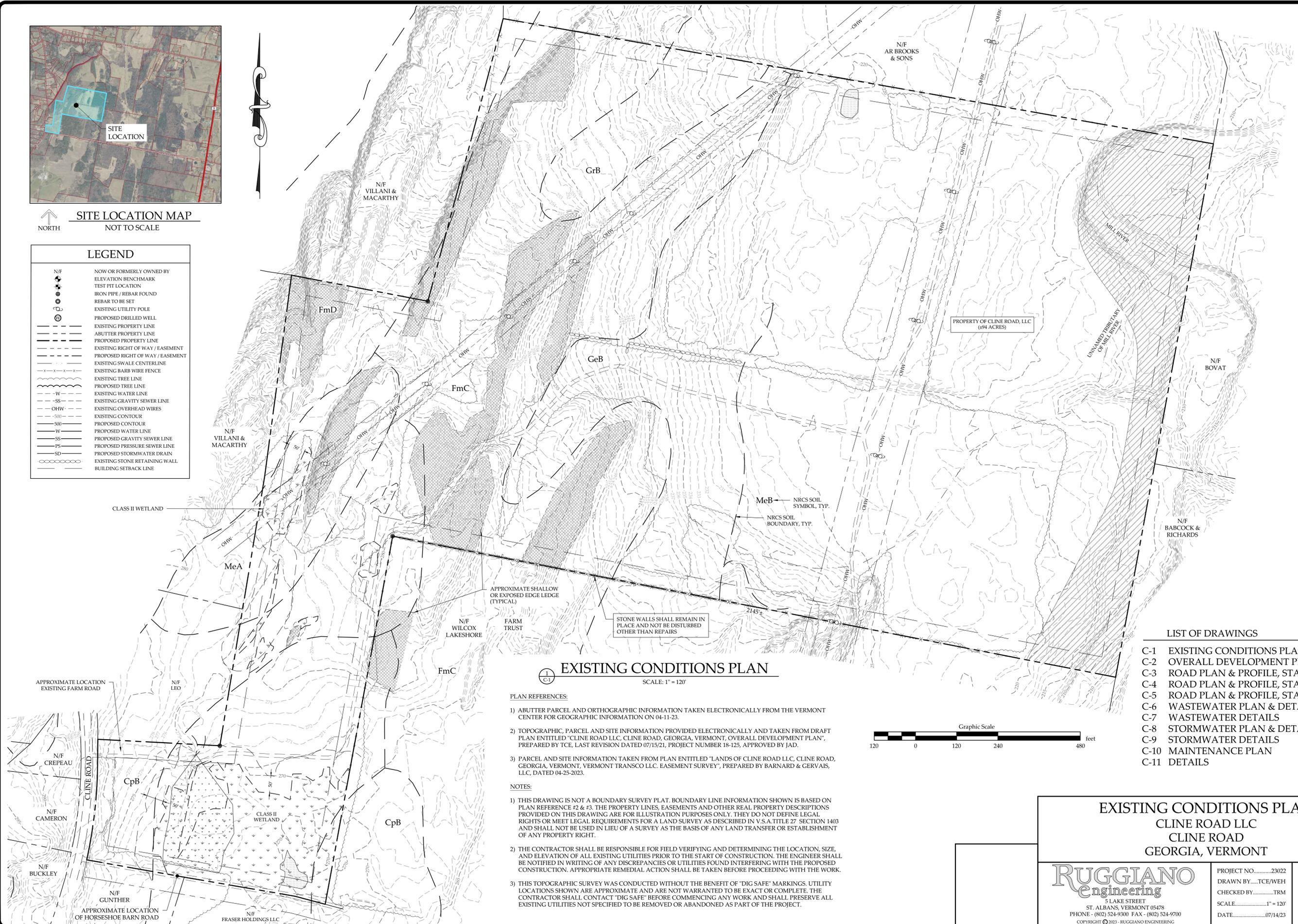


SITE LOCATION MAP
NOT TO SCALE

LEGEND	
N/F	NOW OR FORMERLY OWNED BY
⊕	ELEVATION BENCHMARK
⊕	TEST PIT LOCATION
⊕	IRON PIPE / REBAR FOUND
⊕	REBAR TO BE SET
⊕	EXISTING UTILITY POLE
⊕	PROPOSED DRILLED WELL
---	EXISTING PROPERTY LINE
---	ABUTTER PROPERTY LINE
---	PROPOSED PROPERTY LINE
---	EXISTING RIGHT OF WAY / EASEMENT
---	PROPOSED RIGHT OF WAY / EASEMENT
---	EXISTING SWALE CENTERLINE
---	EXISTING BARR WIRE FENCE
---	EXISTING TREE LINE
---	PROPOSED TREE LINE
---	EXISTING WATER LINE
---	EXISTING GRAVITY SEWER LINE
---	EXISTING OVERHEAD WIRES
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
---	PROPOSED WATER LINE
---	PROPOSED GRAVITY SEWER LINE
---	PROPOSED PRESSURE SEWER LINE
---	PROPOSED STORMWATER DRAIN
---	EXISTING STONE RETAINING WALL
---	BUILDING SETBACK LINE



EXISTING CONDITIONS PLAN
SCALE: 1" = 120'

PLAN REFERENCES:

- 1) ABUTTER PARCEL AND ORTHOGRAPHIC INFORMATION TAKEN ELECTRONICALLY FROM THE VERMONT CENTER FOR GEOGRAPHIC INFORMATION ON 04-11-23.
- 2) TOPOGRAPHIC, PARCEL AND SITE INFORMATION PROVIDED ELECTRONICALLY AND TAKEN FROM DRAFT PLAN ENTITLED "CLINE ROAD LLC, CLINE ROAD, GEORGIA, VERMONT, OVERALL DEVELOPMENT PLAN", PREPARED BY TCE, LAST REVISION DATED 07/15/21, PROJECT NUMBER 18-125, APPROVED BY JAD.
- 3) PARCEL AND SITE INFORMATION TAKEN FROM PLAN ENTITLED "LANDS OF CLINE ROAD LLC, CLINE ROAD, GEORGIA, VERMONT, VERMONT TRANSCO LLC. EASEMENT SURVEY", PREPARED BY BARNARD & GERVAIS, LLC, DATED 04-25-2023.

NOTES:

- 1) THIS DRAWING IS NOT A BOUNDARY SURVEY PLAT. BOUNDARY LINE INFORMATION SHOWN IS BASED ON PLAN REFERENCE #2 & #3. THE PROPERTY LINES, EASEMENTS AND OTHER REAL PROPERTY DESCRIPTIONS PROVIDED ON THIS DRAWING ARE FOR ILLUSTRATION PURPOSES ONLY. THEY DO NOT DEFINE LEGAL RIGHTS OR MEET LEGAL REQUIREMENTS FOR A LAND SURVEY AS DESCRIBED IN V.S.A. TITLE 27 SECTION 1403 AND SHALL NOT BE USED IN LIEU OF A SURVEY AS THE BASIS OF ANY LAND TRANSFER OR ESTABLISHMENT OF ANY PROPERTY RIGHT.
- 2) THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING AND DETERMINING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES OR UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION. APPROPRIATE REMEDIAL ACTION SHALL BE TAKEN BEFORE PROCEEDING WITH THE WORK.
- 3) THIS TOPOGRAPHIC SURVEY WAS CONDUCTED WITHOUT THE BENEFIT OF "DIG SAFE" MARKINGS. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND ARE NOT WARRANTED TO BE EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT "DIG SAFE" BEFORE COMMENCING ANY WORK AND SHALL PRESERVE ALL EXISTING UTILITIES NOT SPECIFIED TO BE REMOVED OR ABANDONED AS PART OF THE PROJECT.



LIST OF DRAWINGS

- C-1 EXISTING CONDITIONS PLAN
- C-2 OVERALL DEVELOPMENT PLAN
- C-3 ROAD PLAN & PROFILE, STA. 00+00 - 09+00
- C-4 ROAD PLAN & PROFILE, STA. 09+00 - 21+50
- C-5 ROAD PLAN & PROFILE, STA. 21+50 - 24+60
- C-6 WASTEWATER PLAN & DETAILS
- C-7 WASTEWATER DETAILS
- C-8 STORMWATER PLAN & DETAILS
- C-9 STORMWATER DETAILS
- C-10 MAINTENANCE PLAN
- C-11 DETAILS

EXISTING CONDITIONS PLAN CLINE ROAD LLC CLINE ROAD GEORGIA, VERMONT		
RUGGIANO Engineering 5 LAKE STREET ST. ALBANS, VERMONT 05478 PHONE - (802) 524-9300 FAX - (802) 524-9700 COPYRIGHT © 2023 - RUGGIANO ENGINEERING	PROJECT NO.....23022	SHEET NO.
	DRAWN BY.....TCE/WEH	C-1
CHECKED BY.....TRM	SCALE.....1" = 120'	1 OF 11 SHEETS
DATE.....07/14/23		



20' WIDE PEDESTRIAN EASEMENT OVER LOT 14 TO BENEFIT THE TOWN OF GEORGIA
COMMON WALKING TRAIL (TYP.)
10' GRAVEL DRIVEWAY WITH 2' GRASS SHOULDERS TO EACH LOT, (TYPICAL)
PROPOSED 24' WIDE PAVED PRIVATE ROAD WITH 2' SHOULDERS TOTAL LENGTH 2460'
PROPOSED 60' ACCESS & UTILITY EASEMENT

N/F VILLANI & MACARTHY

N/F VILLANI & MACARTHY

CLASS III WETLAND
CLASS II WETLAND
CLASS III WETLAND IMPACT
490 SQ FT
0.01 ACRES
24' WIDE ROADWAY CENTERED IN 60' ROW

CLASS III WETLAND
N/F LEO

CLASS II WETLAND BUFFER IMPACT
7,892 SQ FT
0.18 ACRES
CLASS II WETLAND IMPACT
372 SQ FT
0.01 ACRES

N/F CREPEAU
N/F CAMERON
N/F BUCKLEY
N/F GUNTHER
N/F FRASER HOLDINGS

ROADWAY TO TERMINATE IN CUL-DE-SAC

N/F VILLANI & MACARTHY

LOT SETBACK (TYPICAL)

LOT 5
1.22 AC

LOT 7
1.07 AC

LOT 15 OPEN SPACE EASEMENT ±1.29 AC

LOT 3
1.00 AC

LOT 4
1.00 AC

LOT 2
0.85 AC

LOT 1
0.85 AC

CLASS III WETLAND

PROPOSED 4-BEDROOM SINGLE-FAMILY DWELLING ON LOTS 1-14 (TYPICAL)

EXISTING BARN TO BE REMOVED

24' WIDE PAVED ROAD WITH 2' SHOULDERS

N/F WILCOX LAKESHORE FARM TRUST

60' EASEMENT TO NEIGHBORING PROPERTY

APPROXIMATE LOCATION EXISTING FARM ROAD

50' WETLAND BUFFER, (TYPICAL)

LOT 14
0.85 AC

LOT 13
0.82 AC

LOT 11
0.81 AC

LOT 9
0.86 AC

LOT 12
0.81 AC

LOT 10
1.42 AC

LOT 8
1.23 AC

LOT 6
1.09 AC

PROPOSED DRILLED WELL ON EACH LOT, (TYPICAL)

PROPOSED WASTEWATER SYSTEM FOR LOT 10

PROPOSED LOCATIONS FOR WASTEWATER DISPOSAL FOR LOTS 1-9, 11-14

LOT 15 COMMON LOT 79.87 AC

PROPERTY OF CLINE ROAD, LLC (±94 ACRES)

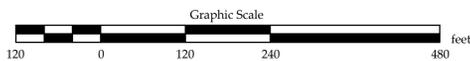
N/F BOVAT

N/F BARCOCK & RICHARDS

STONE WALLS SHALL REMAIN IN PLACE AND NOT BE DISTURBED OTHER THAN REPAIRS

OVERALL SITE PLAN

SCALE: 1" = 120'



NOTE:

EVERY 4TH UNIT CONSTRUCTED (3 UNITS TOTAL) MUST BE RESTRICTED TO 1500 SQ. FT. FOR MIN 5 YEARS AFTER CONSTRUCTION.

PURPOSE OF PLAN:

PROPOSED 15 LOT PLANNED UNIT DEVELOPMENT WITH (14) SINGLE FAMILY HOMES. EACH LOT TO BE SERVED BY INDIVIDUAL WATER SUPPLIES AND SHARED WASTEWATER SYSTEM. REMAINING LANDS TO BE RETAINED WITH OPEN SPACE EASEMENTS.

OWNER:

CLINE ROAD, LLC
7 OAK STREET
ST. ALBANS, VT. 05478

ZONING NOTES:

DISTRICT: HIGH-DENSITY RESIDENTIAL (AR-1)

PUD PERIMETER SETBACK = 50 FT PLANNED UNIT DEVELOPMENT

MAX DENSITY = 5/AC/UNIT = 18 UNITS
PROPOSED = 14 DWELLING UNITS
OPEN SPACE = 19.42 AC = ±20.7% EXISTING PROPERTY

MIN LOT SIZE = 0.75 AC
PUD SETBACK = 50'

OVERALL DEVELOPMENT PLAN CLINE ROAD LLC CLINE ROAD GEORGIA, VERMONT

RUGGIANO
Engineering

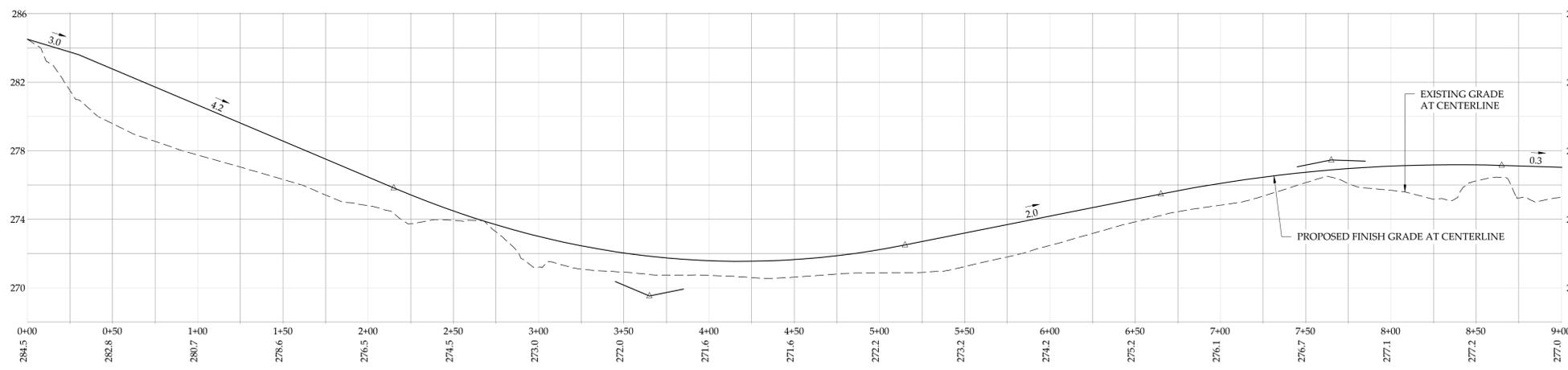
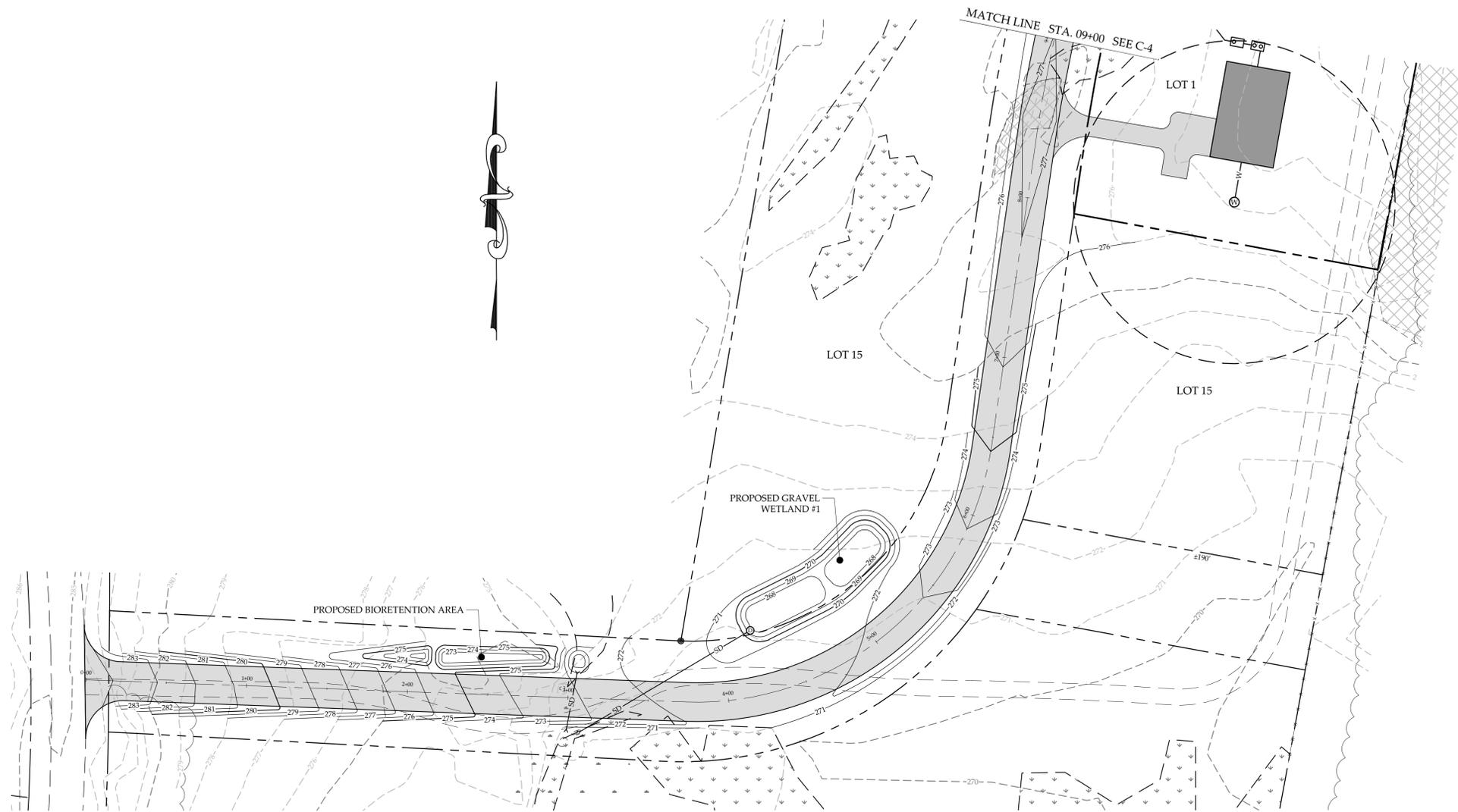
5 LAKE STREET
ST. ALBANS, VERMONT 05478
PHONE - (802) 524-9300 FAX - (802) 524-9700
COPYRIGHT © 2023 - RUGGIANO ENGINEERING

PROJECT NO.23022
DRAWN BY....TCE/WEH
CHECKED BY.....TRM
SCALE.....1" = 120'
DATE.....07/14/23

SHEET NO.

C-2

2 OF 11 SHEETS



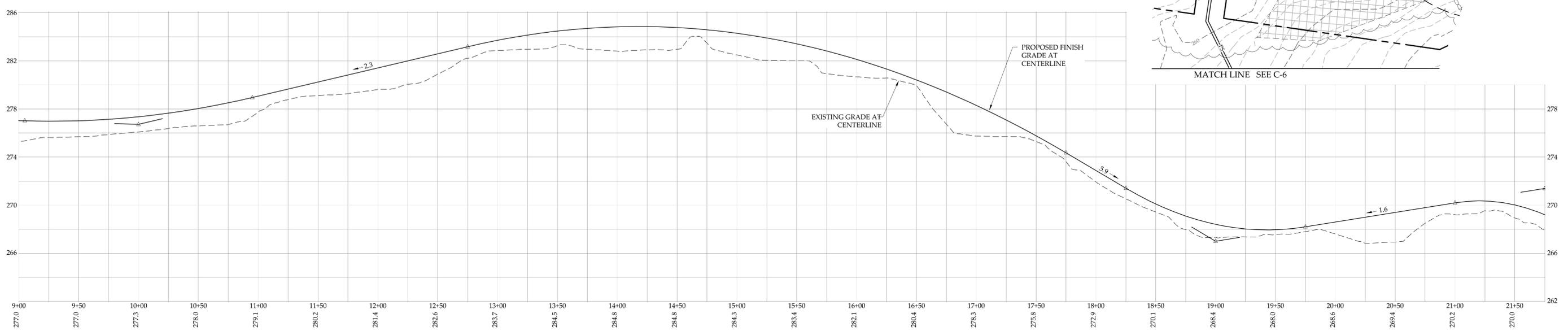
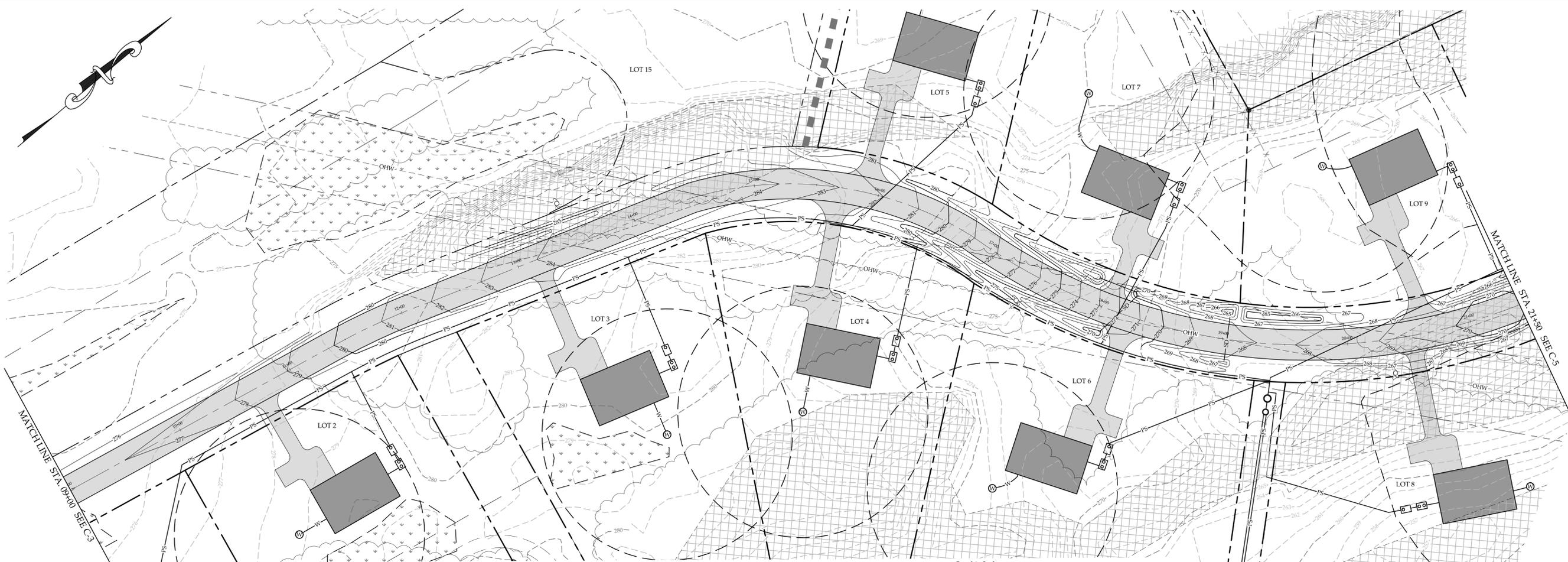
ROAD PLAN & PROFILE STA. 00+00 - 09+00
CLINE ROAD LLC
CLINE ROAD
GEORGIA, VERMONT

RUGGIANO
Engineering

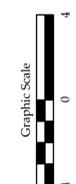
5 LAKE STREET
ST. ALBANS, VERMONT 05478
PHONE - (802) 524-9300 FAX - (802) 524-9700
COPYRIGHT © 2023 - RUGGIANO ENGINEERING

PROJECT NO.....23022
DRAWN BY.....TCE/WEH
CHECKED BY.....TRM
SCALE.....AS NOTED
DATE.....07/14/23

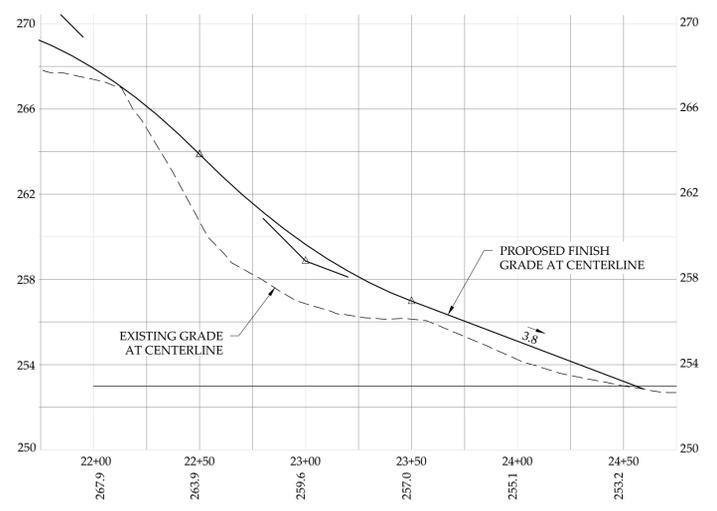
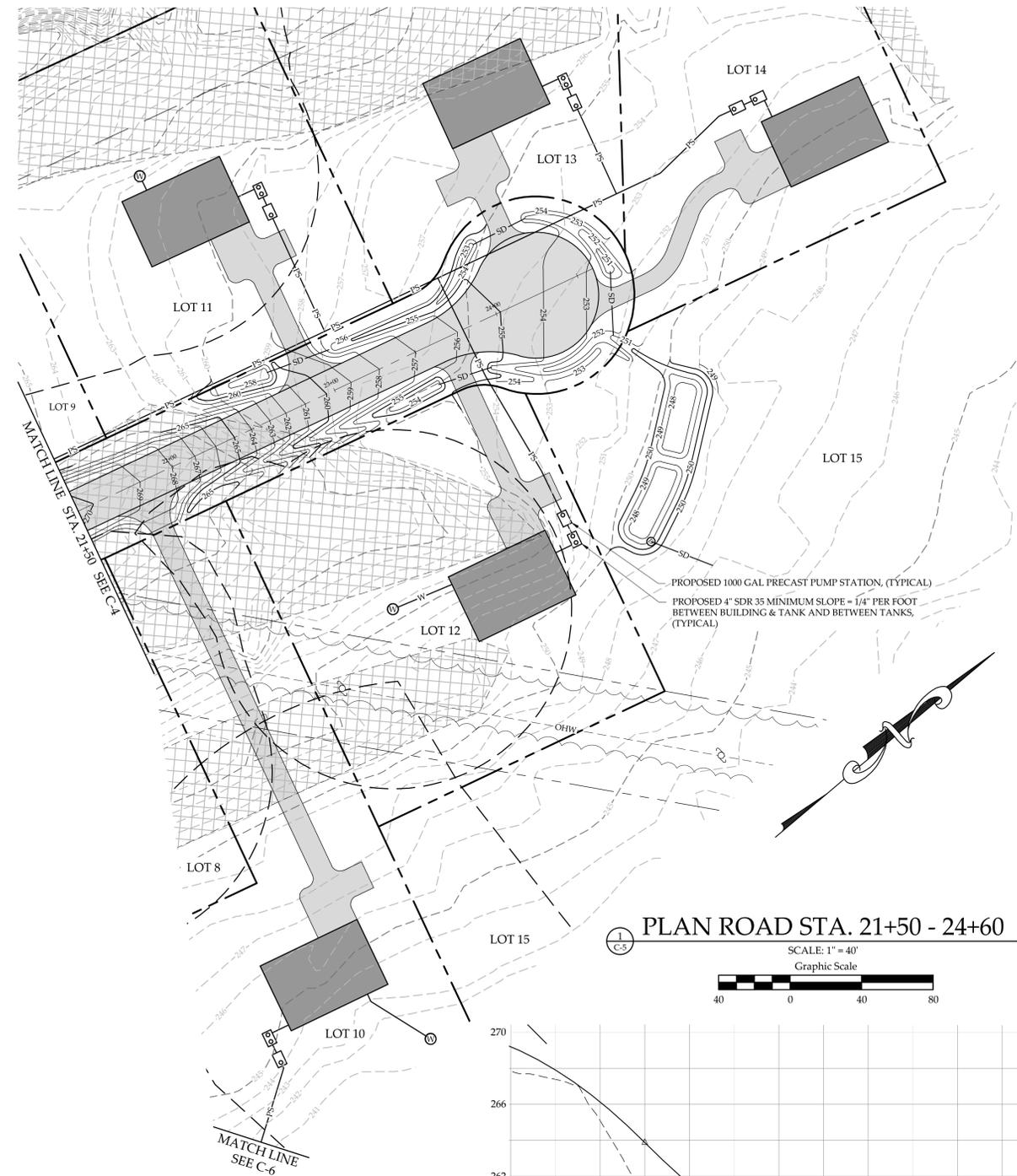
SHEET NO.
C-3
3 OF 11 SHEETS



2
C-4



ROAD PLAN & PROFILE STA. 09+00 - 21+50 CLINE ROAD LLC CLINE ROAD GEORGIA, VERMONT	
 RUGGIANO <i>Engineering</i> 5 LAKE STREET ST. ALBANS, VERMONT 05478 PHONE - (802) 524-9300 FAX - (802) 524-9700 COPYRIGHT © 2023 - RUGGIANO ENGINEERING	PROJECT NO.....23022 DRAWN BY.....TCE/WEH CHECKED BY.....TRM SCALE.....AS NOTED DATE.....07/14/23
SHEET NO. C-4 4 OF 11 SHEETS	

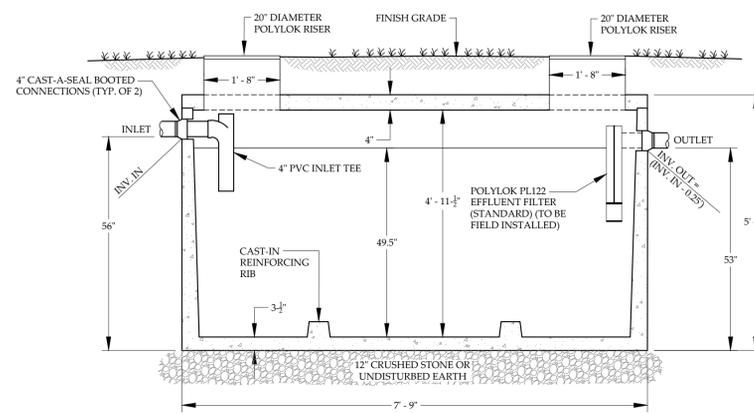


ROAD PLAN & PROFILE STA. 21+50 - 24+60 CLINE ROAD LLC CLINE ROAD GEORGIA, VERMONT		
 RUGGIANO Engineering 5 LAKE STREET ST. ALBANS, VERMONT 05478 PHONE - (802) 524-9300 FAX - (802) 524-9700 COPYRIGHT © 2023 - RUGGIANO ENGINEERING	PROJECT NO.....23022 DRAWN BY.....TCE/WEH CHECKED BY.....TRM SCALE.....AS NOTED DATE.....07/14/23	SHEET NO. C-5 5 OF 11 SHEETS

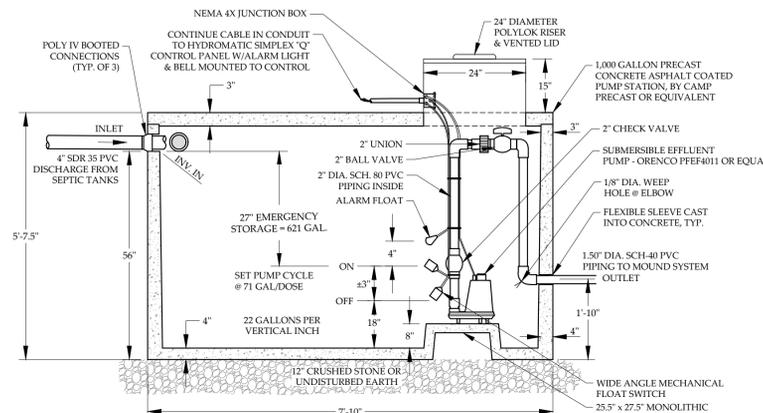


WASTEWATER PLAN
 SCALE: 1" = 30'
 Graphic Scale
 30 0 30 60 feet

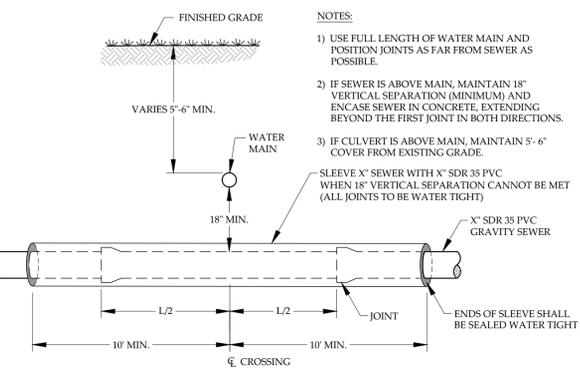
WASTEWATER PLANS CLINE ROAD LLC CLINE ROAD GEORGIA, VERMONT		
 5 LAKE STREET ST. ALBANS, VERMONT 05478 PHONE - (802) 524-9300 FAX - (802) 524-9700 COPYRIGHT © 2023 - RUGGIANO ENGINEERING	PROJECT NO.....23022 DRAWN BY.....TCE/WEH CHECKED BY.....TRM SCALE.....AS NOTED DATE.....07/14/23	SHEET NO. C-6 6 OF 11 SHEETS



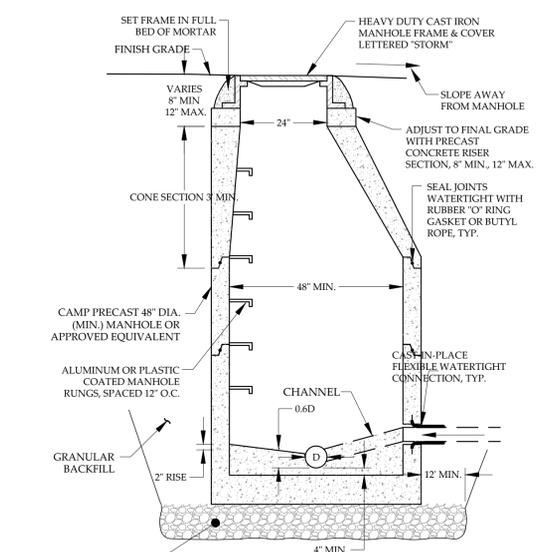
1,000-GALLON SEPTIC TANK
NOT TO SCALE



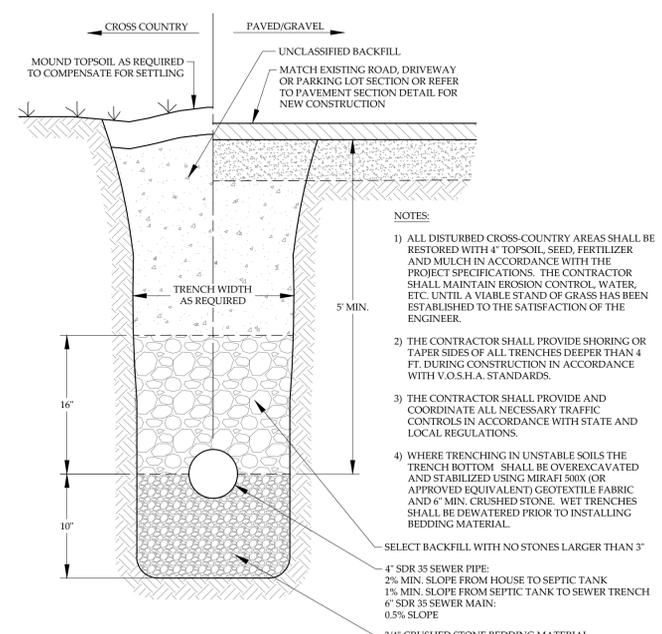
1,000-GALLON PUMP STATION
NOT TO SCALE



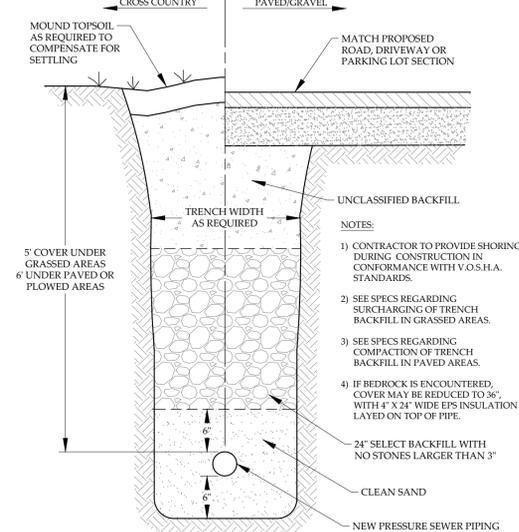
WATER/SEWER DRAIN CROSSING
NOT TO SCALE



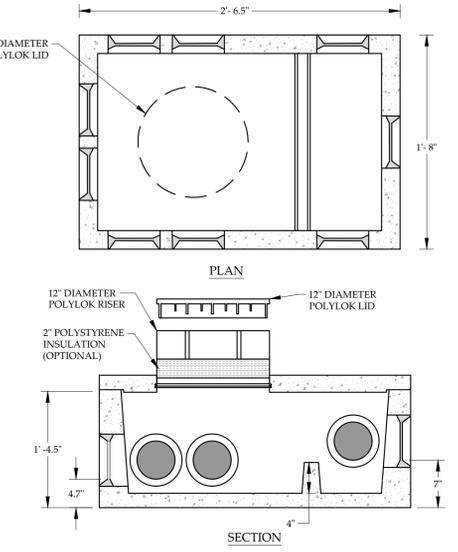
TYPICAL SANITARY MANHOLE
NOT TO SCALE



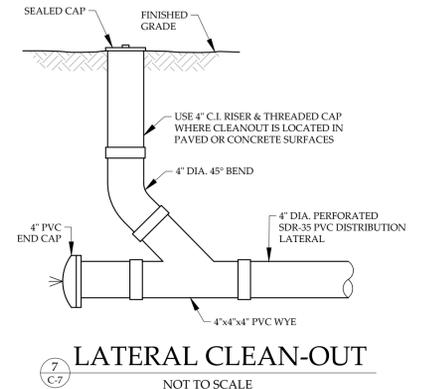
TYPICAL SANITARY SEWER TRENCH
NOT TO SCALE



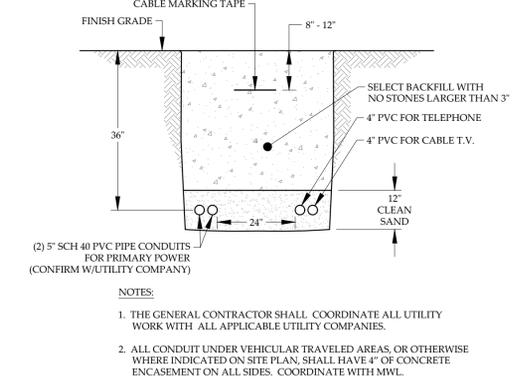
TYPICAL PRESSURE SEWER TRENCH
NOT TO SCALE



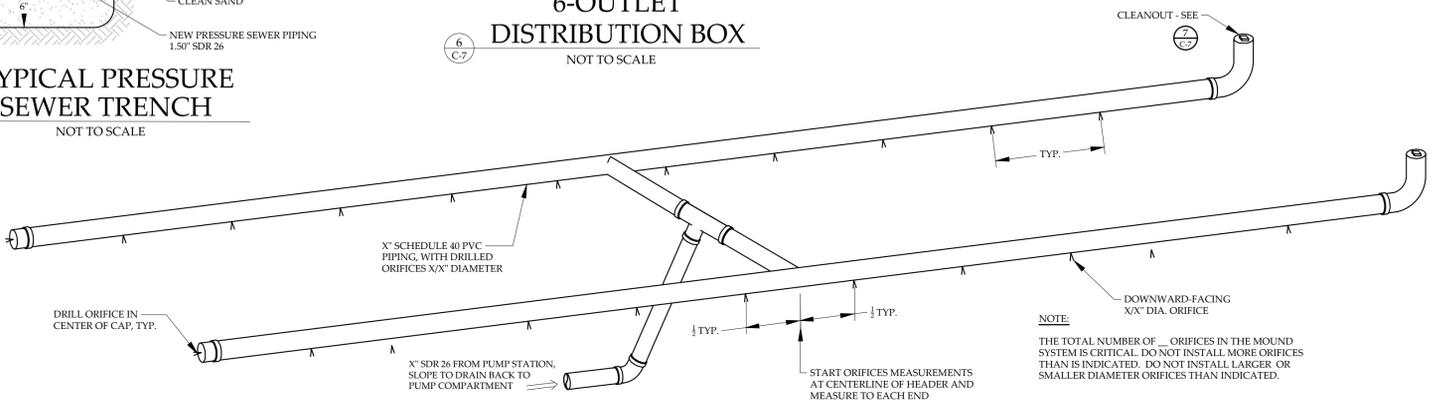
6-OUTLET DISTRIBUTION BOX
NOT TO SCALE



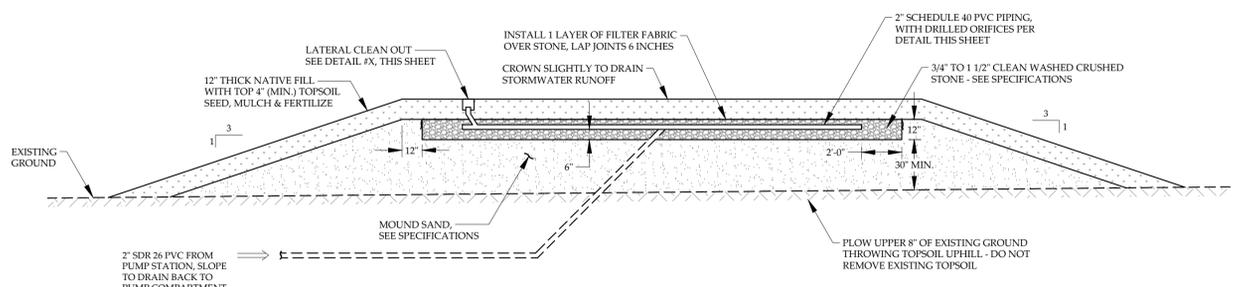
LATERAL CLEAN-OUT
NOT TO SCALE



UTILITY TRENCH
NOT TO SCALE



DISTRIBUTION LATERALS
NOT TO SCALE

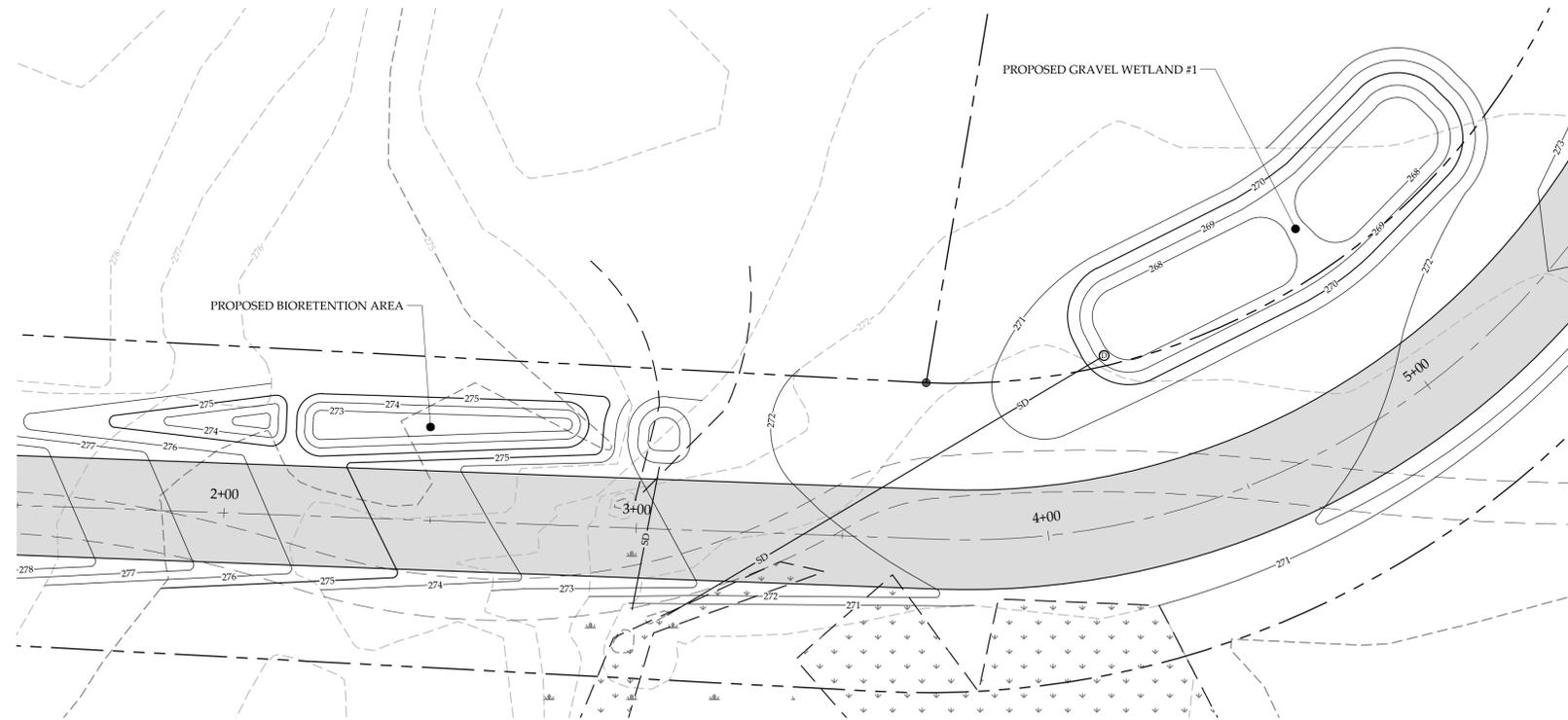


TYPICAL MOUND SECTION
NOT TO SCALE

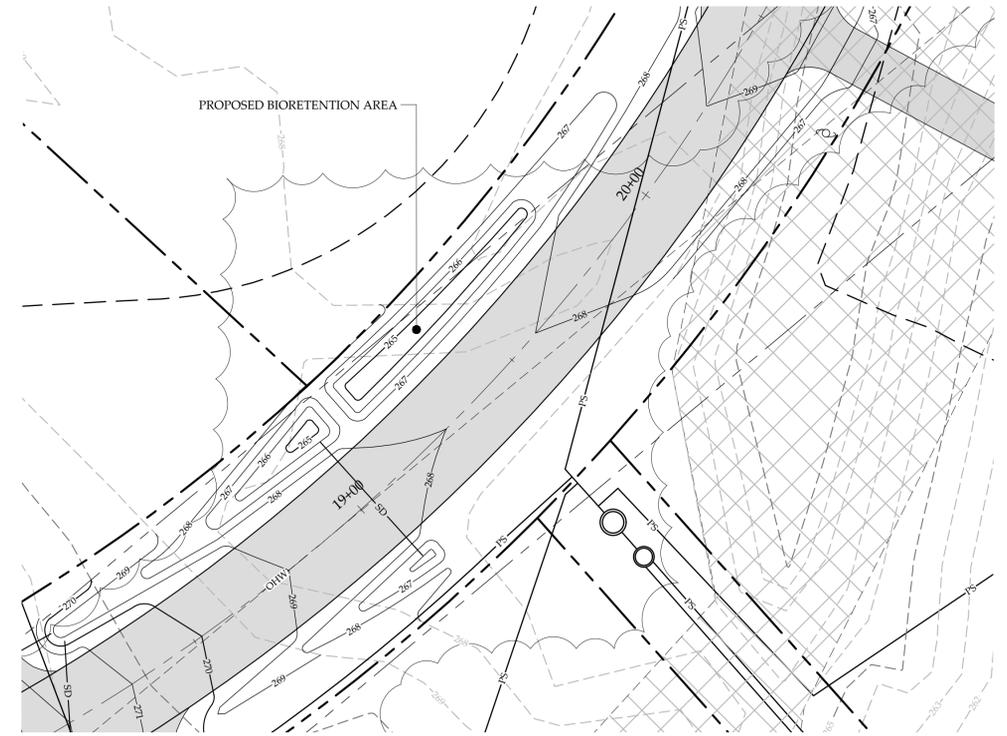
WASTEWATER DETAILS
CLINE ROAD LLC
CLINE ROAD
GEORGIA, VERMONT

RUGGIANO Engineering	PROJECT NO.23022 DRAWN BY....TCE/WEH CHECKED BY.....TRM SCALE.....AS NOTED DATE.....07/14/23	SHEET NO. C-7 7 OF 11 SHEETS
--------------------------------	---	---

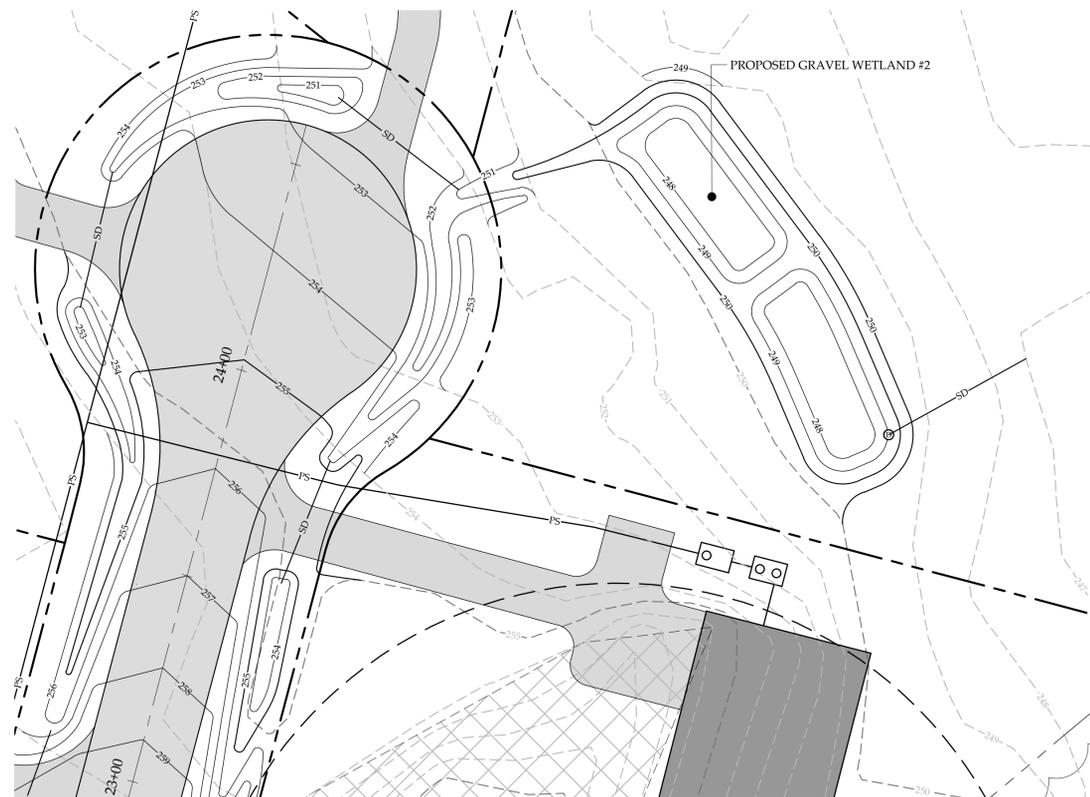
5 LAKE STREET
ST. ALBANS, VERMONT 05478
PHONE - (802) 524-9300 FAX - (802) 524-9700
COPYRIGHT © 2023 - RUGGIANO ENGINEERING



1
C-8
STORMWATER PLAN
SCALE: 1" = 20'
Graphic Scale
20 0 20 40 80 feet



2
C-8
STORMWATER BIORETENTION BASIN
SCALE: 1" = 10'
Graphic Scale
10 0 10 20 40 feet



3
C-8
STORMWATER PLAN
SCALE: 1" = 20'
Graphic Scale
20 0 20 40 80 feet

STORMWATER PLANS CLINE ROAD LLC CLINE ROAD GEORGIA, VERMONT		
 RUGGIANO <i>Engineering</i> 5 LAKE STREET ST. ALBANS, VERMONT 05478 PHONE - (802) 524-9300 FAX - (802) 524-9700 COPYRIGHT © 2023 - RUGGIANO ENGINEERING	PROJECT NO.....23022 DRAWN BY.....TCE/WEH CHECKED BY.....TRM SCALE.....AS NOTED DATE.....07/14/23	SHEET NO. C-8 8 OF 11 SHEETS

POST CONSTRUCTION SOIL RESTORATION NOTES:
 ALL NATIVE VEGETATION AND SOIL OUTSIDE OF PROJECT AREA TO BE LEFT UNDISTURBED AND PROTECTED FROM COMPACTION DURING CONSTRUCTION. POST CONSTRUCTION SOIL RESTORATION AREAS ARE MADE UP OF ALL DISTURBED AREAS ON SLOPES LESS THAN OR EQUAL TO 3% & ARE NOT COVERED WITH IMPERVIOUS SURFACES, AN INTEGRAL PORTION OF A STORMWATER TREATMENT PRACTICE, OR STRUCTURAL FILL ONCE CONSTRUCTION IS DONE. CONTRACTOR TO IDENTIFY AREAS BEFORE START OF CONSTRUCTION AND INSTALL FENCING TO ENSURE PROTECTION. ANY AREAS THAT ARE DISTURBED AND/OR COMPACTED DURING THE COURSE OF CONSTRUCTION WILL HAVE TOPSOIL RESTORED BY MEANS OF ONE OF THE FOLLOWING METHODS:

- OPTION 1: AMEND EXISTING SITE TOPSOIL OR SUBSOIL IN PLACE.**
- SCARIFY OR TILL SUBSOILS TO 4 INCHES OF DEPTH OR TO DEPTH NEEDED TO ACHIEVE A TOTAL DEPTH OF 4 INCHES OF UNCOMPACTED SOIL. AFTER CALCULATED AMOUNT OF AMENDMENT IS ADDED, EXCEPT FOR WITHIN THE DRIP LINE OF EXISTING TREES, THE ENTIRE SURFACE SHALL BE DISTURBED BY SCARIFICATION;
 - AMEND SOIL TO MEET ORGANIC CONTENT REQUIREMENTS:
 - o PRE-APPROVED RATE: PLACE 1 INCH OF COMPOSTED MATERIAL WITH AN ORGANIC MATTER CONTENT BETWEEN 40 AND 65% AND ROTOTILL INTO 3 INCHES OF SOIL, OR
 - o CALCULATED RATE: PLACE CALCULATED AMOUNT OF COMPOSTED MATERIAL OR APPROVED ORGANIC MATERIAL AND ROTOTILL INTO DEPTH OF SOIL NEEDED TO ACHIEVE 4 INCHES OF SETTLED SOIL AT 4% ORGANIC CONTENT;
 - RAKE BEDS TO SMOOTH AND REMOVE SURFACE ROCKS LARGER THAN 2 INCHES IN DIAMETER; AND
 - WATER OR ROLL TO COMPACT SOIL IN TURF AREAS TO 85% OF MAXIMUM DRY DENSITY.
- OPTION 2: REMOVE AND STOCKPILE EXISTING TOPSOIL DURING GRADING.**
- STOCKPILE SOIL ON SITE IN A DESIGNATED CONTROLLED AREA, AT LEAST 50 FEET FROM SURFACE WATERS, WETLANDS, FLOODPLAINS, OR OTHER CRITICAL RESOURCE AREAS;
 - SCARIFY OR TILL SUBGRADE TO A DEPTH OF 4 INCHES, EXCEPT FOR WITHIN THE DRIP LINE OF EXISTING TREES, THE ENTIRE SURFACE SHALL BE DISTURBED BY SCARIFICATION;
 - STOCKPILED TOPSOIL SHALL ALSO BE AMENDED, IF NEEDED, TO MEET THE ORGANIC CONTENT REQUIREMENTS:
 - o PRE-APPROVED RATE: COMPOST SHALL BE INCORPORATED WITH AN ORGANIC MATTER CONTENT BETWEEN 40 AND 65% INTO THE TOPSOIL AT A RATIO 1:3, OR
 - o CALCULATED RATE: INCORPORATE COMPOSTED MATERIAL OR APPROVED ORGANIC MATERIAL AT A CALCULATED RATE TO ACHIEVE 4 INCHES OF SETTLED SOIL AT 4% ORGANIC CONTENT;
 - RAKE TO LEVEL, AND REMOVE SURFACE ROCKS LARGER THAN 2 INCHES IN DIAMETER.
- OPTION 3: IMPORT TOPSOIL, MIX, OR OTHER MATERIALS FOR MIXING, INCLUDING COMPOST, OF SUFFICIENT ORGANIC CONTENT AND DEPTH.**
- SCARIFY OR TILL SUBGRADE TO A DEPTH OF 4 INCHES, EXCEPT FOR WITHIN THE DRIP LINE OF EXISTING TREES, THE ENTIRE SURFACE SHALL BE DISTURBED BY SCARIFICATION;
 - PLACE 4 INCHES OF IMPORTED TOPSOIL MIX ON SURFACE. THE IMPORTED TOPSOIL MIX SHALL CONTAIN 4% ORGANIC MATTER. SOILS USED IN THE MIX SHALL BE SAND OR SANDY LOAM AS DEFINED BY THE USDA;
 - RAKE BEDS TO SMOOTH AND REMOVE SURFACE ROCKS LARGER THAN 2 INCHES IN DIAMETER; AND
 - WATER OR ROLL TO COMPACT SOIL IN TURF AREAS TO 85% OF MAXIMUM DRY DENSITY.
- NOTE:** CONTRACTOR TO VERIFY SOIL RESTORATION AFTER CONSTRUCTION BY MEANS OF SOIL SAMPLING. SOIL SAMPLING PROCEDURES INCLUDE NINE 8-INCH DEEP TEST HOLES PER ACRE AND SHALL BE AT LEAST 50 FEET APART FROM EACH OTHER. SAMPLE HOLES TO BE DUG BY SHOVEL DRIVEN BY CONTRACTOR'S WEIGHT ALONE.

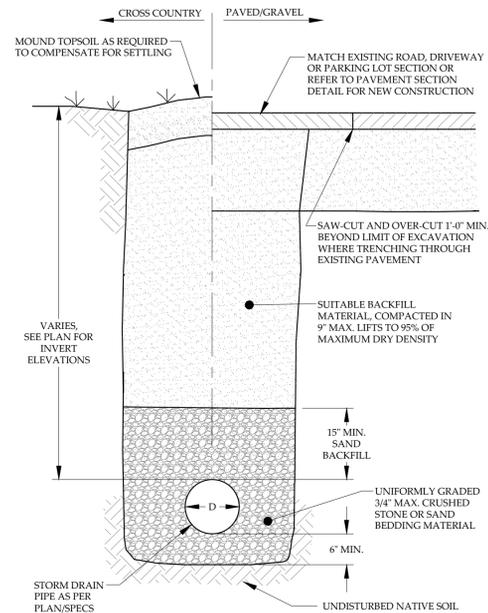
- STORMWATER MAINTENANCE NOTES:**
- STORMWATER MAINTENANCE NOTES:**
- KEEP FOREBAY & SIDESLOPES FREE OF WOODY VEGETATION.
 - CLEAR FOREBAY BASIN BOTTOM OF ACCUMULATED SEDIMENT AS NEEDED.
 - MONITOR AND MAINTAIN LEVEL SPREADER AND DOWNSLOPE AREA FOR EVEN SHEET FLOW.
 - MONITOR FOR EROSION AND REPAIR PROMPTLY.
 - MAINTAIN VIGOROUS, DENSE VEGETATIVE GROWTH ABOVE NORMAL WATER LEVEL AT ALL TIMES. MOW OR BRUSH HOG MINIMUM TWICE DURING GROWING SEASON TO CONTROL GROWTH.

- SWALES**
- MAINTAIN VIGOROUS, DENSE VEGETATIVE GROWTH AT ALL TIMES IN RIP RAPPED AREAS, MONITOR FOR SEDIMENT ACCUMULATION AND REMOVE/REPLACE IF VOID SPACES ARE LOGGED.
- MONITOR CHECK DAMS FOR PROPER HEIGHT. REMOVE ACCUMULATED SEDIMENT AS NEEDED.
 - MONITOR FOR EROSION AND REPAIR PROMPTLY.

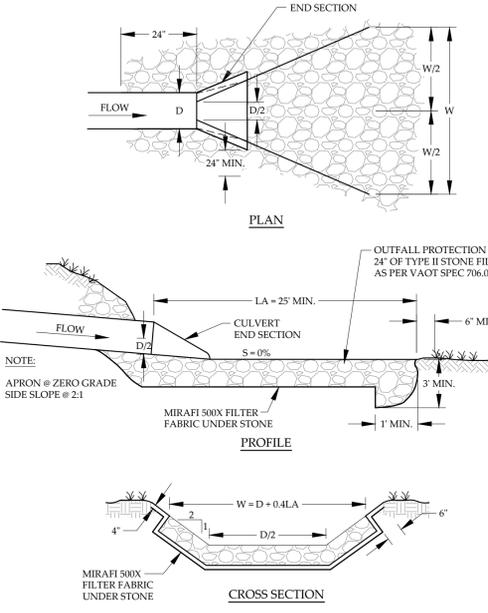
- EPSC NOTES:**
- PRE-CONSTRUCTION**
- 1) IN ACCORDANCE WITH MODERATE RISK CONSTRUCTION STORMWATER PERMIT, NOTIFICATION OF ONSITE PLAN COORDINATOR MUST BE FILED WITH STATE PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 - 2) ALL SEDIMENT CONTROL MEASURES TO BE CONSTRUCTED PRIOR TO INITIATING PRIMARY EARTHWORK ACTIVITIES.
 - 3) STABILIZATION OF OPERATIONAL STORMWATER TREATMENT PRACTICES MUST BE COMPLETED PRIOR TO DIRECTING ANY RUNOFF TO THEM.
- CONSTRUCTION**
- 4) CONSTRUCTION SCHEDULE AND PHASING SHALL BE COORDINATED TO MINIMIZE CONCURRENT EARTH DISTURBANCE. **NOTE: MAX CONCURRENT EARTH DISTURBANCE AT ANY ONE TIME SHALL BE 2.0 ACRES.**
 - 5) ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY OR FINAL STABILIZATION WITHIN 7 DAYS OF THE INITIAL DISTURBANCE. AFTER THIS TIME, ANY DISTURBANCE IN THE AREA MUST BE STABILIZED AT THE END OF EACH WORK DAY. THE FOLLOWING EXCEPTIONS APPLY:
 - a) STABILIZATION IS NOT REQUIRED IF WORK IS TO CONTINUE IN THE AREA WITHIN THE NEXT 24 HOURS AND THERE IS NO PRECIPITATION FORECAST FOR THE NEXT 24 HOURS.
 - b) 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. FOUNDATION EXCAVATION, UTILITY TRENCHES).
 - 6) WINTER CONSTRUCTION IS NOT ANTICIPATED FOR THIS PROJECT. IF ANY CONSTRUCTION IS PROPOSED OUTSIDE OF THE GROWING SEASON (OCT 15 - APR 15) APPROPRIATE WINTER CONSTRUCTION EPSC MEASURES MUST BE IMPLEMENTED PER THE GENERAL PERMIT 3-9020.
 - 7) INSPECTIONS OF CONSTRUCTION ACTIVITIES SHALL BE PERFORMED BY THE ONSITE PLAN COORDINATOR EVERY 7 DAYS (MINIMUM) OR AS DICTATED BY STATE PERMIT.
 - 8) ALL STOCKPILE AND STAGING AREAS TO BE DETERMINED BY CONTRACTOR AND SUBJECT TO STATE CONSTRUCTION STORMWATER REGULATIONS. CONTRACTOR WILL BE RESPONSIBLE FOR DESIGN, APPROVAL AND IMPLEMENTATION OF ALL EPSC MEASURES INCLUDING SEDIMENT/RUNOFF CONTROLS, STABILIZATION AND RESTORATION.
 - 9) FIBER ROLLS MAY BE IMPLEMENTED ON AN AS-NEEDED BASIS FOR SLOWING RUNOFF ON STEEPER SLOPES - CONTRACTOR TO USE MANUFACTURED PRODUCT AND INSTALL ACCORDING TO MANUFACTURER RECOMMENDATIONS. ROLLS TO BE INSTALLED PARALLEL TO CONTOURS, KEYED INTO SLOPES AND SECURED WITH STAKES TO PREVENT BLOWOUTS OR CONCENTRATIONS.

- STABILIZATION**
- 10) ALL DISTURBED AREAS TO BE VEGETATED AND STABILIZED WITH ROLLED EROSION CONTROL MATTING UNLESS OTHERWISE NOTED ON THE PLANS. SEE DETAIL 10/C-4.
 - 11) TOPSOIL AMENDMENTS SHALL BE MADE AS NECESSARY TO PROVIDE NUTRIENT AND pH LEVELS REQUIRED FOR SEED MIX. FOR VEGETATION ESTABLISHMENT PRIOR TO SEPT 15, USE THE FOLLOWING SEED MIX:

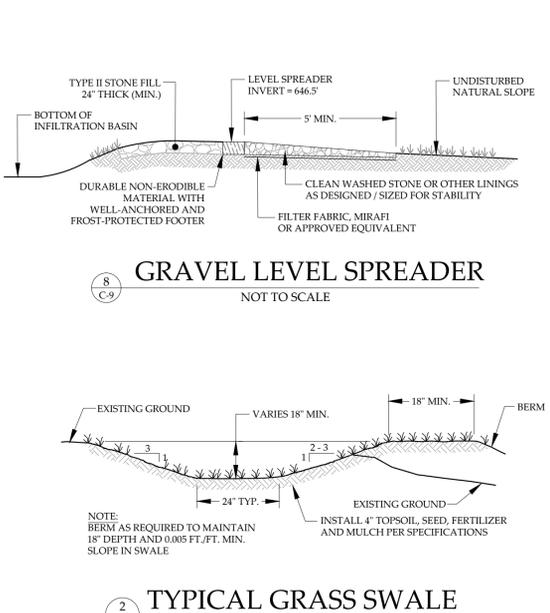
	PROPORTION	PURITY	GERMINATION
CREeping RED FESCUE	60%	85%	97%
MERION, KY. BLUEGRASS	25%	85%	95%
RED TOP	15%	85%	90%



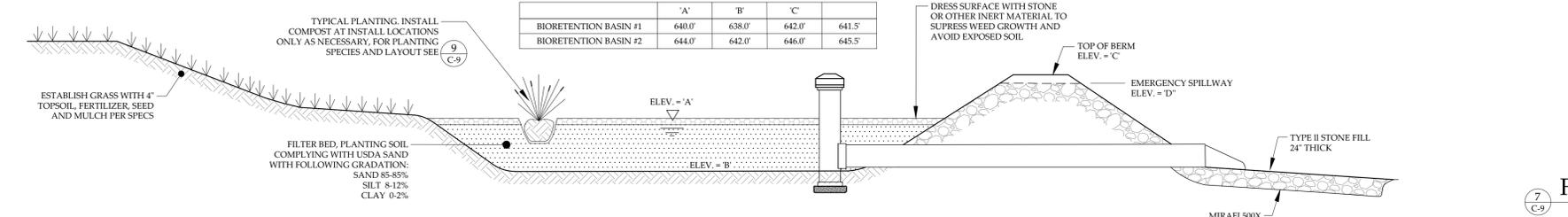
1 C-9 TYPICAL STORM DRAIN TRENCH NOT TO SCALE



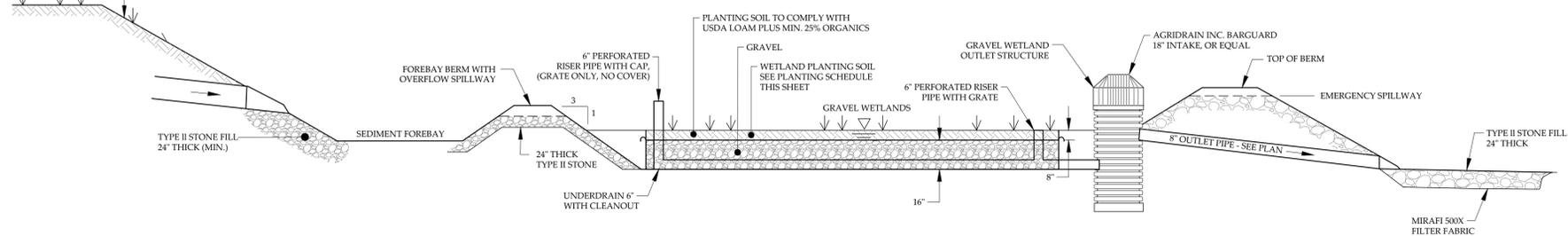
2 C-9 CULVERT OUTLET DETAIL NOT TO SCALE



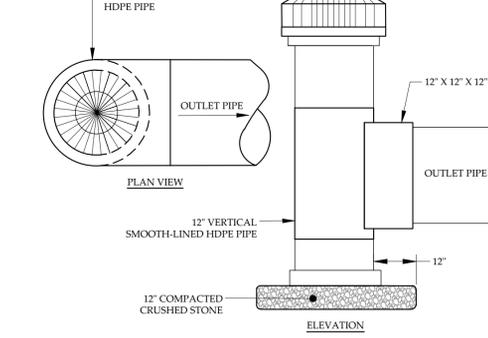
8 C-9 GRAVEL LEVEL SPREADER NOT TO SCALE



4 C-9 STORMWATER BIORETENTION BASIN SECTION NOT TO SCALE

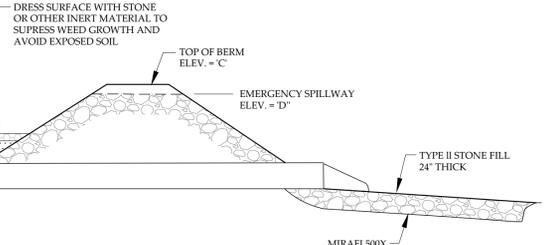


5 C-9 PROPOSED GRAVEL WETLAND SECTION NOT TO SCALE



6 C-9 DRAINAGE STRUCTURE NOT TO SCALE

	'A'	'B'	'C'	
BIORETENTION BASIN #1	640.0'	638.0'	642.0'	641.5'
BIORETENTION BASIN #2	644.0'	642.0'	646.0'	645.5'



7 C-9 PEA GRAVEL FILTER DIAPHRAGM NOT TO SCALE

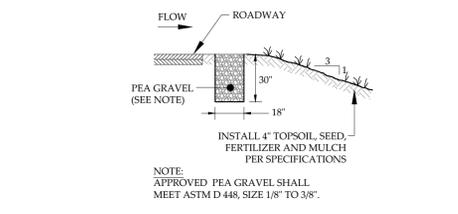
Proposed Plant List

Trees Key	Quantity	Symbol	Scientific Name	Common Name	Size
○	23	As	Acer Saccharum	Sugar Maple	2.5" - 3" cal.
○	7	Bp	Betula Papyrifera	Paper Birch	2" - 2.5" cal.
○	4	Qa	Quercus Alba	White Oak	2.5" cal.
○	13	Pg	Picea glauca	White Spruce	5' - 6' tall
○	7	To	Thuja occidentalis	Emerald Arborvitae	5' - 6' @ 2' - 3' O/C

Bioretention Planting Schedule (Typical Each Location)

Abr	Quantity	Botanical Name	Common Name	Spacing	Initial Size
AA	26	Acorus americanus	Sweet Flag	22"	1 Gallon
AC	24	Anemone canadensis	Windflower	22-30"	1 Gallon
ACA	26	Aquilegia canadensis	Columbine	15-22"	1 Gallon
AF	32	Athyrium filix-femina	Lady Fern	22"	1 Gallon
CT	22	Cautophyllum thalictroides	Blue Cohosh	22"	1 Gallon
CA	24	Cornus sericea 'Artic Fire'	Red Osier Dogwood	4-5'	2-3 Gallon
LC	20	Lobelia cardinalis	Cardinal Flower	22"	1 Gallon

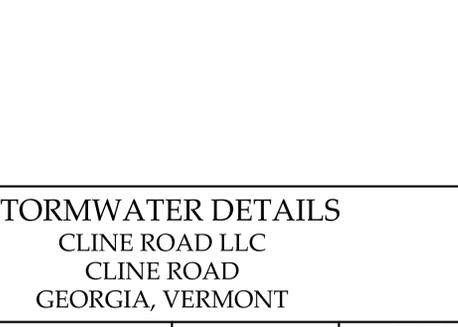
9 C-9 PLANTING SCHEDULES NOT TO SCALE



7 C-9 PEA GRAVEL FILTER DIAPHRAGM NOT TO SCALE



4 C-9 STORMWATER BIORETENTION BASIN SECTION NOT TO SCALE



5 C-9 PROPOSED GRAVEL WETLAND SECTION NOT TO SCALE

6 C-9 DRAINAGE STRUCTURE NOT TO SCALE

STORMWATER DETAILS
 CLINE ROAD LLC
 CLINE ROAD
 GEORGIA, VERMONT

RUGGIANO
 engineering

PROJECT NO.....23022
 DRAWN BY.....TCE/WEH
 CHECKED BY.....TRM
 SCALE.....AS NOTED
 DATE.....07/14/23

SHEET NO.
C-9
 9 OF 11 SHEETS

5 LAKE STREET
 ST. ALBANS, VERMONT 05478
 PHONE - (802) 524-9300 FAX - (802) 524-9700
 COPYRIGHT © 2023 - RUGGIANO ENGINEERING



MAINTENANCE PLAN CLINE ROAD LLC CLINE ROAD GEORGIA, VERMONT		
RUGGIANO Engineering 5 LAKE STREET ST. ALBANS, VERMONT 05478 PHONE - (802) 524-9300 FAX - (802) 524-9700 COPYRIGHT © 2023 - RUGGIANO ENGINEERING	PROJECT NO.....23022	SHEET NO.
	DRAWN BY.....WEH	C-10
CHECKED BY.....TRM		
SCALE.....1" = 100'		
DATE.....07/14/23	10 OF 11 SHEETS	

SPECIFICATIONS FOR AGGREGATE BASE COURSE FOR USE BENEATH PAVED DRIVEWAYS, ROADWAYS, PARKING AREAS, CURBS AND SIDEWALKS.

FILL MATERIALS:
 DENSE GRADED CRUSHED STONE: AGENCY OF TRANSPORTATION SPECIFICATION 704.06A - DENSE GRADED CRUSHED STONE FOR SUBBASE, SUBBASE OF GRAVEL, CRUSHED GRAVEL MEETING AGENCY OF TRANSPORTATION SPECIFICATION 704.05A - CRUSHED GRAVEL FOR SUBBASE.
 FINE AGGREGATE (SAND) FILL: SAND MEETING LATEST STATE OF VERMONT, AGENCY OF TRANSPORTATION SPECIFICATION 703.03A - SAND BORROW AND CUSHION.
 AGGREGATE FOR SURFACE COURSE AND SHOULDERS: CRUSHED STONE OR CRUSHED GRAVEL MEETING LATEST STATE OF VERMONT AGENCY OF TRANSPORTATION SPECIFICATION 704.12A.

GEOTEXTILE:
 MIRAFI 500X OR APPROVED EQUIVALENT.

AGGREGATE PLACEMENT:
 SPREAD AGGREGATE OVER PREPARED SUBSTRATE. SUBBASE MATERIALS OR THICKNESSES ARE IDENTIFIED ON THE DRAWINGS. CONTRACTOR MAY CHOOSE DENSE GRADED CRUSHED STONE OR SUBBASE OF GRAVEL FOR COARSE AGGREGATE. WHERE TRENCHING IS PERFORMED ACROSS EXISTING PAVEMENT OR CONCRETE, REPLACE SUBBASE WITH EQUIVALENT MATERIALS AND THICKNESSES UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS.

TOLERANCES:
 PLACE AGGREGATE IN MAXIMUM 6-INCH LAYERS AND ROLLER COMPACT. USE A VIBRATORY ROLLER. LEVEL AND CONTOUR SURFACES TO ELEVATIONS AND GRADIENTS INDICATED. ADD SMALL QUANTITIES OF FINE AGGREGATE TO COARSE AGGREGATE AS APPROPRIATE TO ASSIST COMPACTION.
 ADD WATER TO ASSIST COMPACTION. IF EXCESS WATER IS APPARENT, REMOVE AGGREGATE AND AERATE TO REDUCE MOISTURE CONTENT.
 USE MECHANICAL TAMPING EQUIPMENT IN AREAS INACCESSIBLE TO COMPACTION EQUIPMENT.

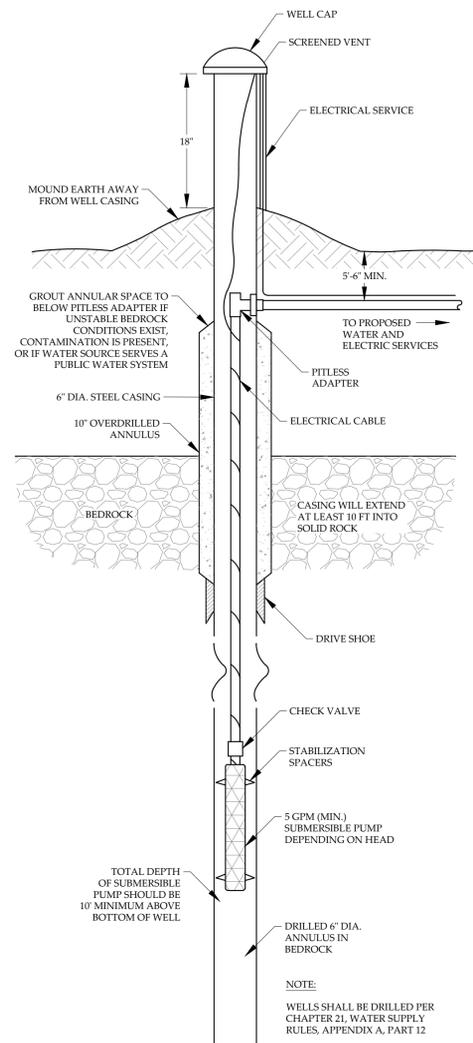
FLATNESS: MAXIMUM VARIATION OF 1/8 INCH MEASURED WITH A 10-FOOT (3 M) STRAIGHT EDGE.
SCHEDULED COMPACTED THICKNESS: THICKNESSES INDICATED ON THE DRAWINGS ARE MINIMUM THICKNESS. DO NOT EXCEED MINIMUM THICKNESS BY MORE THAN 1 INCH WITHOUT APPROVAL OF THE ENGINEER.
VARIATION FROM TRUE ELEVATION: WITHIN 1/4 INCH.
FIELD QUALITY CONTROL:
 COMPACT PLACED AGGREGATE MATERIAL TO ACHIEVE COMPACTION TO 95 PERCENT OF MODIFIED PROCTOR DENSITY.

SPECIFICATIONS FOR BITUMINOUS CONCRETE PAVEMENT, STANDARD BASE AND FINISH COURSES

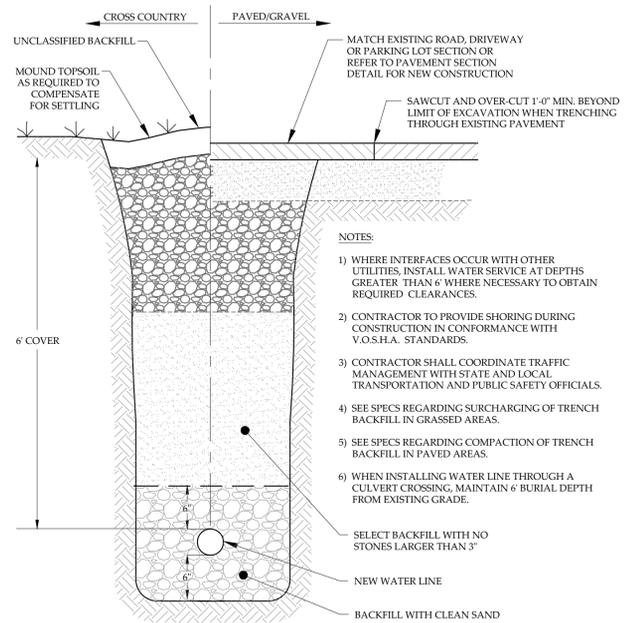
QUALITY ASSURANCE:
 DO NOT PLACE ASPHALTIC CONCRETE PAVING WHEN THE AIR TEMPERATURE IN THE SHADE AND/OR THE ROADBED TEMPERATURE ARE BELOW 50 DEGREE F, OR DURING RAIN, WHEN THE BASE COURSE SURFACE IS WET OR DURING OTHER ADVERSE WEATHER CONDITIONS.
 DO NOT PLACE TACK COAT WHEN AIR TEMPERATURE IN THE SHADE AND THE ROADBED TEMPERATURE ARE BELOW 40 DEGREE F OR DURING RAIN, FOG OR OTHER ADVERSE WEATHER CONDITIONS.
 ALL WORK SHALL BE PERFORMED BY EXPERIENCED AND QUALIFIED WORKMEN WITH EQUIPMENT STANDARD WITH THE INDUSTRY.

APPROVAL BY ENGINEER OF SOURCES OF SUPPLY FOR MATERIALS SHALL BE OBTAINED PRIOR TO DELIVERY OF MATERIALS.
 COMPLY WITH FEDERAL, STATE AND/OR LOCAL CODES AND REGULATIONS.

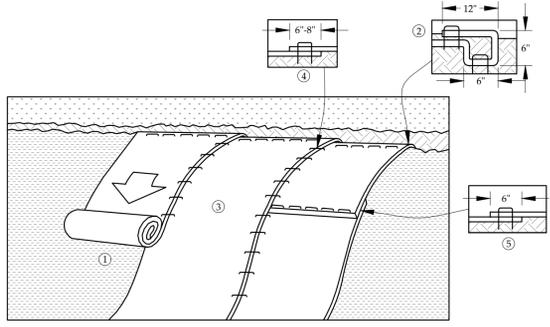
MATERIALS:
 PROVIDE MATERIALS COMPLYING WITH VERMONT AGENCY OF TRANSPORTATION SPECIFICATION 406.02. BASE COURSE OF PAVEMENT SHALL BE TYPE II AND WEARING COURSE SHALL BE TYPE IV, IN ACCORDANCE WITH VERMONT AGENCY OF TRANSPORTATION SPECIFICATION 406.03A.
 WHERE TRENCHING AND PATCHING THROUGH EXISTING PAVED AREAS, MATCH EXISTING PAVEMENT TYPE. PLACING ASPHALT PAVEMENT - DOUBLE COURSE:
 INSTALL MANHOLE FRAMES AND COVERS IN CORRECT POSITION AND ELEVATION.
 INSTALL DRAINAGE FRAMES AND GRATES IN CORRECT POSITION AND ELEVATION.
 PLACE ASPHALT IN ACCORDANCE WITH VERMONT AGENCY OF TRANSPORTATION SPECIFICATION 406.13. PLACE BASE COURSE TO 1 1/2 INCHES COMPACTED THICKNESS, UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS.
 PLACE WEARING COURSE WITHIN TWO HOURS OF PLACING AND COMPACTING BASE COURSE.
 PLACE WEARING COURSE TO 1 1/2 INCHES COMPACTED THICKNESS, UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS.
 WHEN TRENCHING AND PATCHING IN EXISTING PAVED AREAS, MATCH EXISTING PAVEMENT MATERIALS AND THICKNESSES.
 COMPACT PAVEMENT BY ROLLING. DO NOT DISPLACE OR EXTRUDE PAVEMENT FROM POSITION. HAND COMPACT IN AREAS INACCESSIBLE TO ROLLING EQUIPMENT.
 DEVELOP ROLLING WITH CONSECUTIVE PASSES TO ACHIEVE EVEN AND SMOOTH FINISH, WITHOUT ROLLER MARKS.
PAVEMENT TOLERANCES:
 MAXIMUM FLATNESS VARIATION OF 1/8 INCH MEASURED WITH A 10 FOOT (3 M) STRAIGHT EDGE.
 SCHEDULED COMPACTED THICKNESS: WITHIN 1/4 INCH.
 VARIATION FROM TRUE ELEVATION: WITHIN 1/4 INCH.
 THICKNESS: IN-PLACE COMPACTED THICKNESS TESTED IN ACCORDANCE WITH ASTM D3549 WILL NOT BE ACCEPTABLE IF EXCEEDING THE FOLLOWING ALLOWABLE VARIATIONS: BASE COURSE: +/- 1/2", SURFACE COURSE: +/- 1/4".
 SURFACE SMOOTHNESS: TEST FINISHED SURFACE OF EACH HOT-MIXED ASPHALT COURSE FOR SMOOTHNESS, USING 10 STRAIGHTEDGE APPLIED PARALLEL WITH AND AT RIGHT ANGLES TO CENTERLINE OF THE PAVED AREA. SURFACES WILL NOT BE ACCEPTABLE IF EXCEEDING THE FOLLOWING TOLERANCES FOR SMOOTHNESS: BASE COURSE: +/- 1/4", WEARING COURSE SURFACE: +/- 3/16".
 CROWNED SURFACES: TEST WITH CROWNED TEMPLATE CENTERED AND AT RIGHT ANGLE TO CROWN. MAXIMUM ALLOWABLE VARIANCE FROM TEMPLATE IS +/- 1/4".
 CHECK SURFACE AREAS AT INTERVALS AS DIRECTED BY THE ENGINEER.
PROTECTION:
 IMMEDIATELY AFTER PLACEMENT, PROTECT PAVEMENT FROM MECHANICAL INJURY FOR 48 HOURS.



2 C-11
BEDROCK WELL DETAIL
 NOT TO SCALE



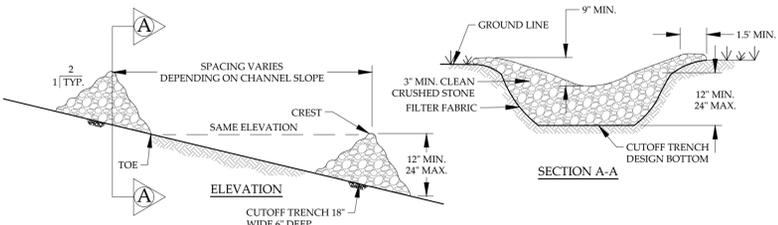
3 C-11
TYPICAL WATER LINE TRENCH
 NOT TO SCALE



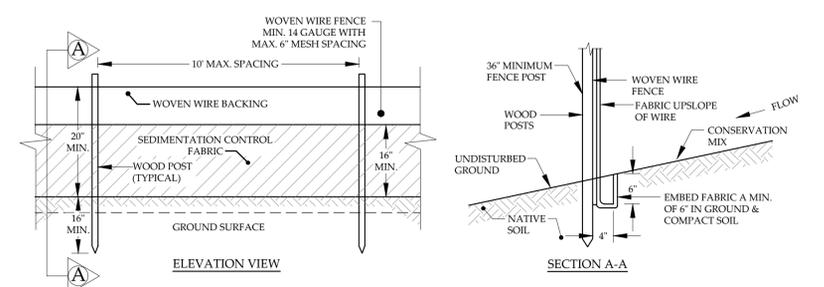
NOTES:

- 1) PREPARE SOIL BEFORE INSTALLING EROSION CONTROL BLANKET (ECB) INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER AND SEED.
- 2) BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE ECB IN A 6" DEEP, 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
- 3) ROLL THE BLANKET DOWN THE SLOPE. BLANKET WILL UNROLL WITH THE APPROPRIATE SIDE 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 THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- 4) THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 6" - 8" OVERLAP DEPENDING ON BLANKET TYPE.
- 5) CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 6" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.
- 6) IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKET.
- 7) THE USE OF WELDED PLASTIC MATTING IS NOT PERMITTED. ALL EROSION CONTROL MATTING MUST BE BIODEGRADABLE AND DEGRADE IN 6-24 MONTHS, DEPENDING ON THEIR MAKEUP.

7 C-11
EROSION CONTROL BLANKET SLOPE INSTALLATION
 NOT TO SCALE



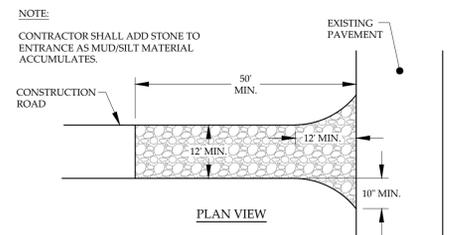
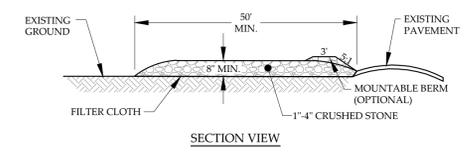
8 C-11
STONE CHECK DAM
 NOT TO SCALE



CONSTRUCTION SPECIFICATIONS:

- 1) CONSTRUCTION SPECIFICATIONS: SILT FENCING WILL BE APPLIED TO THE SITE SO THAT THERE WILL BE 100 FEET OF FENCING FOR EVERY 1/4 ACRE OF DISTURBED UPGRADIENT AREA.
- 2) THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES, OF THE VERMONT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL, PREPARED BY THE STATE OF VERMONT DEPT. OF ENVIRONMENTAL CONSERVATION, DATED 2006.
- 3) WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. WIRE FENCE REINFORCEMENT REQUIRED WITHIN 100 FT UPSLOPE OF RECEIVING WATERS.
- 4) FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
- 5) WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTR X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
- 6) PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
- 7) THE FABRIC SHALL NOT EXTEND MORE THAN 30" ABOVE THE ORIGINAL GROUND SURFACE AND WILL EXTEND TO A MINIMUM OF 12" INTO THE TRENCH. FILTER FABRIC SHALL NOT BE STAPLED INTO EXISTING TREES.
- 8) THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
- 9) FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL, AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- 10) SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
- 11) SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.
- 12) ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED, SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEED.

4 C-11
SILT FENCE DETAIL
 NOT TO SCALE



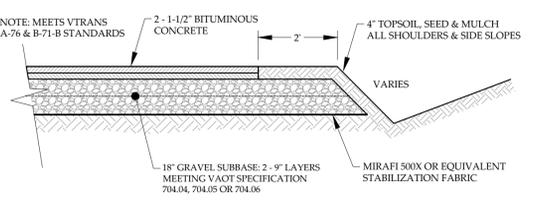
NOTE:
 CONTRACTOR SHALL ADD STONE TO ENTRANCE AS MUD/SILT MATERIAL ACCUMULATES.

CONSTRUCTION ROAD:

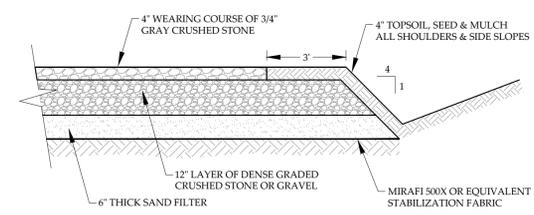
NOTES:

- 1) SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- 2) MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- 3) WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- 4) PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.
- 5) THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR CONSTRUCTION ENTRANCES, OF THE VERMONT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL, PREPARED BY THE STATE OF VERMONT DEPT. OF ENVIRONMENTAL CONSERVATION, DATED 2006.

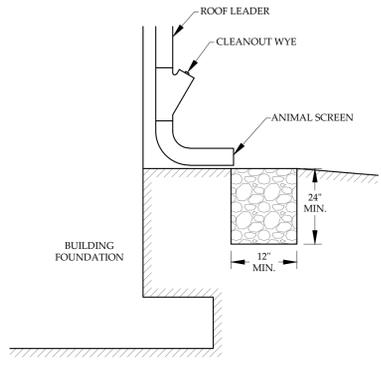
9 C-11
STABILIZED CONSTRUCTION ENTRANCE
 NOT TO SCALE



1 C-11
TYPICAL ROAD SECTION
 NOT TO SCALE



5 C-11
TYPICAL GRAVEL DRIVEWAY SECTION
 NOT TO SCALE



NOTES:

- 1) DO NOT DISCHARGE ROOF OR GUTTER RUNOFF TO PERFORATED BUILDING FOOTING DRAINS.
- 2) THE CONTRIBUTING LENGTH OF ROOFTOP TO EACH DOWNSPOUT DISCHARGE LOCATION SHALL NOT EXCEED 75 FEET.
- 3) THE ROOFTOP AREA CONTRIBUTING TO ANY ONE DISCHARGE LOCATION SHALL NOT EXCEED 1,000 FT².
- 4) DISCHARGES SHALL FLOW OVER A VEGETATED SURFACE WITH A MAXIMUM SLOPE OF 15% FOR A MINIMUM DISTANCE PER PLAN.
- 5) DOWNSPOUTS SHALL BE DIRECTED AT LEAST 10 FEET FROM ANY IMPERVIOUS SURFACE.

6 C-11
TYPICAL ROOFTOP DISCONNECTION
 NOT TO SCALE

DETAILS
CLINE ROAD LLC
CLINE ROAD
GEORGIA, VERMONT

RUGGIANO
 engineering

5 LAKE STREET
 ST. ALBANS, VERMONT 05478
 PHONE - (802) 524-9300 FAX - (802) 524-9700
 COPYRIGHT © 2023 - RUGGIANO ENGINEERING

PROJECT NO.23022
 DRAWN BY....TCE/WEH
 CHECKED BY.....TRM
 SCALE.....AS NOTED
 DATE.....07/14/23

SHEET NO.
C-11
 11 OF 11 SHEETS