

**VEGETATIVE PRACTICES**

- TOP SOILING (3.30): TOPSOIL WILL BE STRIPPED FROM THE SITE AND STOCKPILED IN AN AREA DETERMINED IN THE FIELD. UPON THE COMPLETION OF THE PROJECT TOPSOIL WILL BE PLACED ON ALL DISTURBED AREAS AT A MINIMUM DEPTH OF 6 INCHES.
- TEMPORARY SEEDING (3.31): ALL DENUDDED AREAS LEFT DORMANT FOR MORE THAN 14 DAYS SHALL BE SEEDDED WITH A FAST GERMINATING TEMPORARY VEGETATION.
- TEMPORARY VEGETATION: THE TIME OF YEAR WILL BE THE BASIS FOR THE SEED MIXTURE.
- PERMANENT SEEDING (3.32): ALL SEEDDED AREAS WILL BE RESEDED, MULCHED AND FERTILIZED AS NEEDED TO OBTAIN AN ADEQUATE STAND OF GRASS AS SOON AS POSSIBLE AFTER FINAL GRADING OPERATIONS.
- SODDING (3.33): STABILIZING FINE-GRADED AREAS BY ESTABLISHING PERMANENT GRASS STANDS WITH SOD.
- BERMUDAGRASS & ZOYSIAGRASS ESTABLISHMENT (3.34): ESTABLISHMENT OF VEGETATIVE COVER WITH HYBRID BERMUDAGRASS OR ZOYSIAGRASS BY PLANTING SPRIGS, STOLONS OR PLUGS TO STABILIZE FINE-GRADED AREAS WHERE ESTABLISHMENT BY SOD IS NOT PREFERRED.
- MULCHING (3.35): APPLICATION OF PLANT RESIDUES OR OTHER SUITABLE MATERIALS TO DISTURBED SURFACES TO PREVENT EROSION AND REDUCE OVERLAND FLOW VELOCITIES. FOSTERS PLANT GROWTH BY INCREASING AVAILABLE MOISTURE AND PROVIDING INSULATION AGAINST EXTREME HEAT OR COLD. SHOULD BE APPLIED TO ALL SEEDING OPERATIONS, OTHER PLANT MATERIALS WHICH DO NOT PROVIDE ADEQUATE SOIL PROTECTION BY THEMSELVES, AND BASE AREAS WHICH CANNOT BE SEEDDED DUE TO THE SEASON BUT WHICH STILL NEED PROTECTION TO PREVENT SOIL LOSS.
- SOIL STABILIZATION BLANKETS & MATTING (3.36): THE INSTALLATION OF A PROTECTIVE BLANKET (TREATMENT 1) OR A SOIL STABILIZATION MAT (TREATMENT 2) ON A PREPARED PLANTING OF A STEEP SLOPE, CHANNEL OR SHORELINE.
- TREES, SHRUBS, VINES, AND GROUND COVERS (3.37): STABILIZING DISTURBED AREAS BY PLANTING TREES, SHRUBS, VINES, AND GROUND COVERS WHERE TURF IS NOT PREFERRED. THESE PLANT MATERIALS ALSO PROVIDE FOOD AND SHELTER FOR WILDLIFE AS WELL AS MANY OTHER ENVIRONMENTAL BENEFITS. ESPECIALLY EFFECTIVE WHERE ORNAMENTAL PLANTS ARE DESIRABLE AND TURF MAINTENANCE IS DIFFICULT.
- TREE PRESERVATION AND PROTECTION (3.38): PROTECTING EXISTING TREES FROM MECHANICAL AND OTHER INJURY DURING LAND-DISTURBING AND CONSTRUCTION ACTIVITY TO ENSURE THE SURVIVAL OF DESIRABLE TREES WHERE THEY WILL BE EFFECTIVE FOR EROSION AND SEDIMENT CONTROL AND PROVIDE OTHER ENVIRONMENTAL AND AESTHETIC BENEFITS.
- DUST CONTROL (3.39): REDUCING SURFACE AND AIR MOVEMENT OF DUST DURING LAND DISTURBANCE, DEMOLITION OR CONSTRUCTION ACTIVITIES IN AREAS SUBJECT TO DUST PROBLEMS IN ORDER TO PREVENT SOIL LOSS AND REDUCE THE PRESENCE OF POTENTIALLY HARMFUL AIRBORNE SUBSTANCE.

**MANAGEMENT STRATEGIES**

CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS WILL BEGIN AND END AS SOON AS POSSIBLE. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES. AFTER ACHIEVING ADEQUATE STABILIZATION, AND IN THE OPINION OF THE LOCAL ADMINISTRATOR, THE TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED AND ANY AREAS DISTURBED DURING THIS PROCESS SHALL BE STABILIZED.

**PERMANENT STABILIZATION**

ALL AREAS LEFT UNCOVERED BY EITHER BUILDINGS OR PAVEMENT SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. SEEDING SHALL BE DONE IN ACCORDANCE WITH THE VESCH. ANY ALTERATIONS FROM THIS DOCUMENT SHALL BE APPROVED BY THE LOCAL EROSION CONTROL ADMINISTRATOR. ALL AREAS EITHER TEMPORARILY OR PERMANENTLY SEEDDED NEED TO BE MULCHED AND WATERED REGULARLY TO ACHIEVE, IN THE PROGRAM ADMINISTRATOR'S OPINION, AN ADEQUATE STAND OF VEGETATION.

**MAINTENANCE**

ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH RUNOFF PRODUCING RAINFALL. THEY WILL BE INSPECTED FOR UNDERMINING, DETERIORATION, EROSION AND EXCESS DEPOSITED MATERIAL. ALL DEFICIENCIES WILL BE CORRECTED IMMEDIATELY. EXCESS MATERIAL WILL BE SPREAD ON THE SITE IN A MANNER WHERE IT IS NOT LIKELY TO ERODE IN THE FUTURE.

**MAINTENANCE SCHEDULE:**

IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH RUNOFF PRODUCING RAINFALL. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR: (ALL REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE)

1. THE SEEDDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, RESEED, AND WATERED AS NEEDED.
2. THE INLET PROTECTION SHALL HAVE THE SEDIMENT REMOVED AND THE INLET PROTECTION RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF OF THE DESIGN DEPTH.
3. THE CONSTRUCTION ENCLOSURE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT THE TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT OF WAYS. ALL SEDIMENT REMOVED SHALL BE DISPOSED OF PROPERLY.
4. TEMPORARY STOCKPILE AREA SHALL BE PROTECTED WITH SILT FENCE AS SHOWN, AND SHALL BE SEEDDED AS REQUIRED BY THE VESCH.
5. BOTH TEMPORARY AND PERMANENT ROADS AND PARKING AREAS MAY REQUIRE TOP DRESSING WITH NEW GRAVEL. SEEDDED AREA ADJACENT TO THE ROADS AND PARKING AREAS SHOULD BE CHECKED PERIODICALLY TO ENSURE THAT A VIGOROUS STAND OF VEGETATION IS MAINTAINED. ROADSIDE DITCHES AND OTHER DRAINAGE STRUCTURES SHOULD BE CHECKED REGULARLY TO ENSURE THAT THEY DO NOT BECOME CLOGGED WITH SILT OR OTHER DEBRIS.

**TEMPORARY SEEDING**

PLANTING DATES	SPECIES	RATE IN LBS. PER ACRE
SEPT. 1 - FEB. 15	ANNUAL RYEGRASS (LOLIUM MULTIFLORUM)	30 - 100 lbs. / acre
	CEREAL (WINTER) RYE (SECALE CEREALE)	50%
FEB. 16 - APR. 30	ANNUAL RYEGRASS (LOLIUM MULTIFLORUM)	60 - 100 lbs. / acre
		100%

**PERMANENT SEEDING**

MINIMUM CARE LAWN	(COMMERCIAL OR RESIDENTIAL) KENTUCKY 31 FESCUE IMPROVED PERMANENT RYEGRASS KENTUCKY BLUEGRASS	200-250 lbs. / acre 90-100% 0-10% 0-10%
HIGH MAINTENANCE LAWN	MINIMUM OF THREE (3) MAXIMUM OF FIVE (5) VARIETIES OF BLUEGRASS FROM APPROVED LIST FOR USE IN VIRGINIA	125 lbs. / acre
GENERAL SLOPE (3:1 OR LESS)	KENTUCKY 31 FESCUE RED TOP GRASS SEASONAL NURSE CROP**	150 lbs. / acre 85% 3% 12%
GENERAL SLOPE (STEEPER THAN 3:1)	KENTUCKY 31 FESCUE RED TOP GRASS SEASONAL NURSE CROP** CROWN VETCH****	150 lbs. / acre 70% 3% 13% 14%

\*\* SEASONAL NURSE CROP TO BE SELECTED ACCORDING TO TIME OF YEAR WHEN SOWING WILL OCCUR. SEED WILL HAVE SHORT GERMINATION PERIOD FOR WEED AND EROSION CONTROL.  
\*\*\*\* IF FLATPRAIRIS USED, INCREASE TO 30 lbs. / acre. ALL LEGUME SEED MUST BE PROPERLY INOCULATED. WEEPING LOVEGRASS MAY ALSO BE INCLUDED IN ANY SLOPE OR LOW MAINTENANCE MIXTURE DURING WARMER SEEDING PERIODS. ADD 10 - 20 lbs. / acre IN MIXES.

**EROSION CONTROL NOTE:**

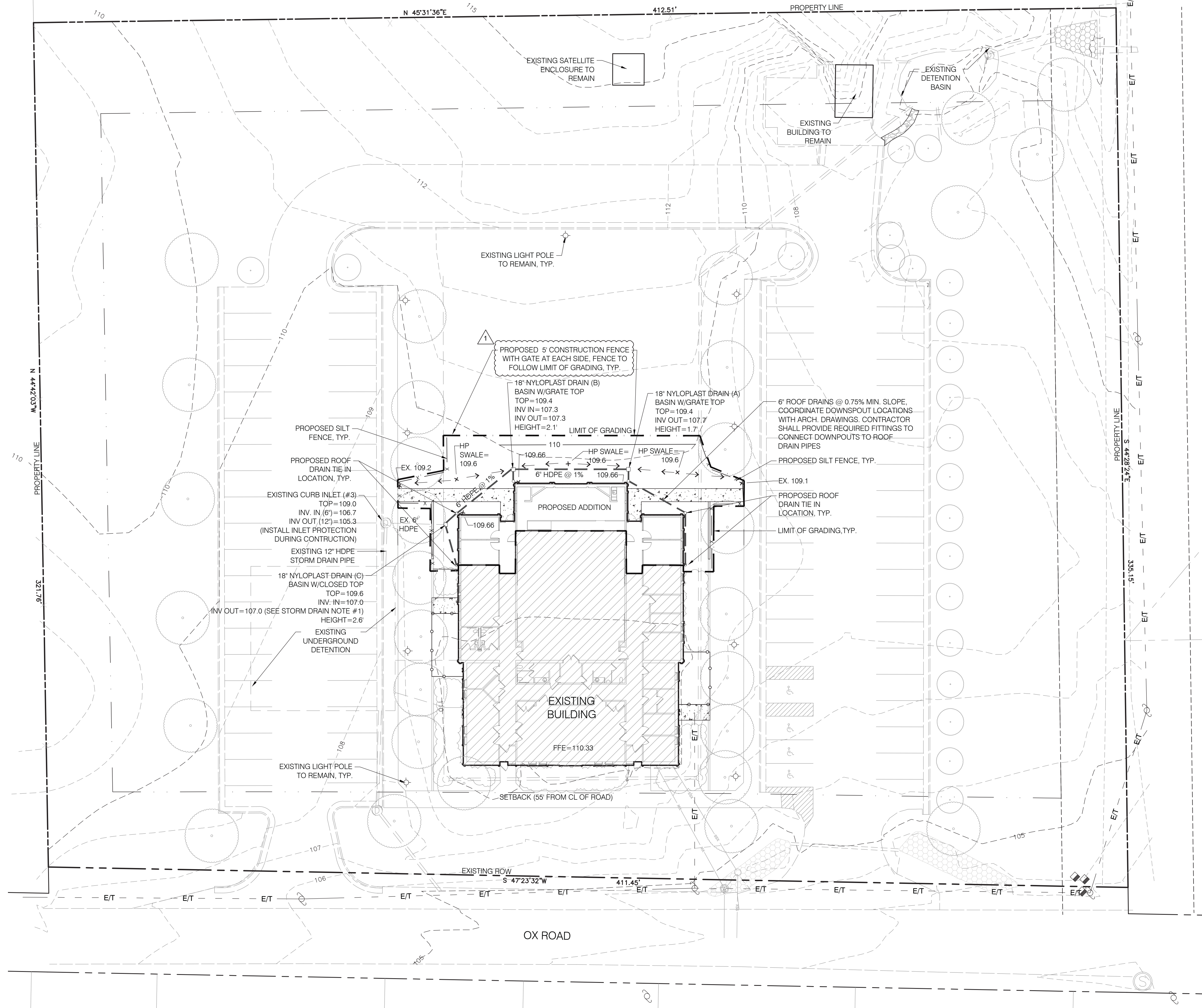
BECAUSE OF THE LIMITED SIZE OF DISTURBANCE, SUBMITTAL AND APPROVAL OF SEDIMENT AND EROSION CONTROL PLANS BY SHENANDOAH COUNTY IS NOT REQUIRED FOR THIS PROJECT; HOWEVER, THE CONTRACTOR SHALL ENSURE THAT SEDIMENT GENERATED FROM THIS DISTURBANCE DOES NOT LEAVE THE SITE AND THAT ALL DISTURBED AREAS ARE STABILIZED PER THE NOTES (LISTED ABOVE) ON THIS PLAN. SILT FENCE SHALL AND INLET PROTECTION SHALL BE INSTALLED AS SHOWN ON THIS PLAN.

**STORM DRAIN NOTES:**

1) CONTRACTOR TO FIELD VERIFY EXISTING SLOPE OF 6" HDPE ROOF DRAIN THAT WILL REMAIN (OUTFALLS TO EXISTING INLET #3). IT IS ASSUMED THAT PIPE SLOPE IS BETWEEN 1% AND 1.5%, IF PIPE SLOPE IS NOT WITHIN THIS RANGE CONTRACTOR TO CONTACT VALLEY ENGINEERING FOR ADJUSTMENT OF PROPOSED STORM DRAIN SYSTEM OR POSSIBLE REPLACEMENT OF EXISTING 6" HDPE BETWEEN NEW 18" CATCH BASIN (C) AND EXISTING INLET #3.

**BENCHMARK NOTE:**

EXISTING CONTOURS AND SPOT ELEVATIONS SHOWN ON THIS PLAN ARE RELATIVE TO THE BENCHMARK ELEVATION OF 110.33 (FINISHED FLOOR OF EXISTING BUILDING)



**Hayes Design Group**

1273 Washington Pike, Suite 200  
Phone: 412.206.0410  
Fax: 412.206.0415  
www.HayesDesign.com

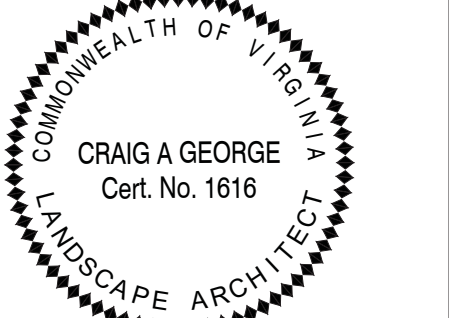


**ARCHITECT'S SEAL:**

**CONSULTANT'S LOGO:**

**VALLEY ENGINEERING**  
IDEAS MADE REAL  
3931 PEOPLES DRIVE  
HARRISONBURG, VIRGINIA 22801  
TELEPHONE (540) 434-6365 OR (800) 343-6365  
FAX (540) 432-0665  
www.valleyesp.com

**CONSULTANT'S SEAL:**



© COPYRIGHT 2015 BY THE HAYES DESIGN GROUP - ARCHITECTS.

THE EXPRESSION AND DESIGN CONTAINED HEREIN ARE PROTECTED BY COPYRIGHT UNDER SECTION 102 OF THE COPYRIGHT ACT, 17 USC AS AMENDED DECEMBER 1, 1990. ANY UNAUTHORIZED REPRODUCTION, ALTERATION, CREATION OF DERIVATIVE WORKS AND/OR DISTRIBUTION OF COPIES CONSTITUTES INFRINGEMENT AND MAY SUBJECT SUCH USER TO PAYMENT OR STATUTORY AND/OR ACTUAL DAMAGES AND INJUNCTIVE RELIEF.

MARK	DATE	DESCRIPTION
▲	Mar. 24, 2017	Addendum #2

ISSUED: **JAN. 13, 2017**  
PROJECT NO: **VALLEY ENG. # 109996**

PROJECT FOR:  
**THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS**

**ADDITIONS AND ALTERATIONS TO WOODSTOCK WARD**

850 OX ROAD  
WOODSTOCK, VA 22664  
SHENANDOAH COUNTY

SHEET TITLE

**GRADING AND EROSION CONTROL PLAN**

PROPERTY DESIGNATION  
**ADDITIONS AND ALTERATIONS TO**

PROPERTY NO.

**535 2592**

PROJECT NO.

**535 2592**

DATE:

**JAN. 13, 2017**

SHEET NO.

**C6.01**

SCALE: 1"=20'

