

## VDOT BACKFILLING AND COMPACTION:

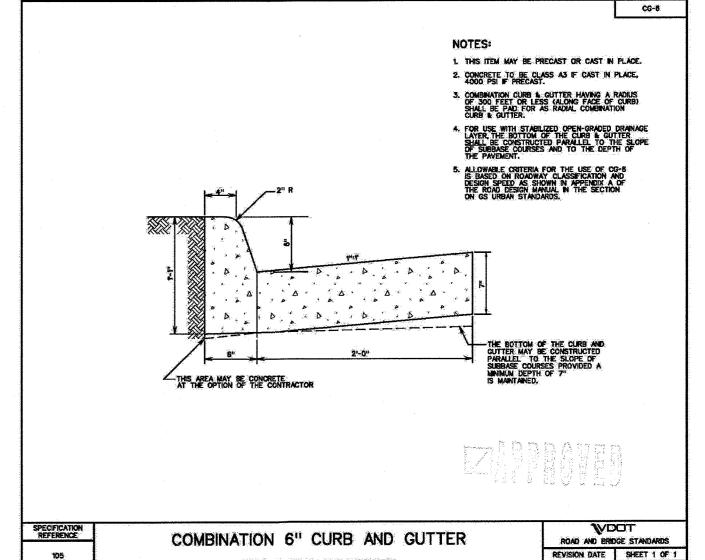
1.) BACKFILL MATERIAL SHALL BE VDOT NO. 21A AGGREGATE, PLACED IN LOOSE LIFTS NOT EXCEEDING 6", AND COMPACTED TO AT LEAST 95% MAXIMUM DRY DENSITY WITHIN 2 PERCENTAGE POINTS OF OPTIMUM MOISTURE (VTM-1) WITH THE USE OF MECHANICAL TAMPERS OR VIBRATORY ROLLERS. WATER COMPACTION IS NOT PERMITTED. LOCAL MATERIAL CLASSIFIED AS TYPE I SELECT MATERIAL MAY BE USED AS BACKFILL UPON PRIOR APPROVAL BY THE COUNTY ENGINEER. MATERIAL CLASSIFICATION SHALL BE PERFORMED ON THE ACTUAL SOIL TO VERIFY THAT SOIL MEETS VDOT SPECIFICATIONS FOR TYPE I SELECT MATERIAL BY A QUALIFIED TESTING LABORATORY AND TEST RESULTS SHALL BE CERTIFIED BY A VIRGINIA REGISTERED PROFESSIONAL ENGINEER. DENSITY REQUIREMENTS ARE THE SAME AS ABOVE, HOWEVER, MOISTURE CONTENT FOR SOILS MAY BE WITHIN 20% OF OPTIMUM. 2.) DENSITY AND MOISTURE TESTING IS REQUIRED ON BOTH THE AGGREGATE AND SOIL BACKFILL USED IN ANY TRENCHWORK. ALL TÉSTING SHALL BE PERFORMED AND CERTIFIED BY A GEOTECHNICAL ENGINEER OR A VDOT CERTIFIED TECHNICIAN. RESULTS SHALL BE PROVIDED TO THE INSPECTOR WITHIN 24-HOURS OF TESTING COMPLETION. THE COST OF ALL TESTING IS THE SOLE RESPONSIBILITY OF

THE PERMITTEE. THE PERMITTEE SHALL SUBMIT WRITTEN TEST RESULTS TO THE INSPECTOR'S OFFICE.

3.) FIELD DENSITY TESTING METHODS SHALL BE APPROVED BY THE COUNTY ENGINEER PRIOR TO PERFORMING ANY TESTING. A PERMITTEE THAT PERFORMS MORE THAN TEN (10) EXCAVATIONS A MONTH UNDER THESE STANDARDS MAY SUBMIT A WRITTEN QUALITY CONTROL PLAN TO REDUCE THE NUMBER OF REQUIRED FIELD DENSITY TESTS. THE QUALITY CONTROL PLAN MUST INCLUDE THE EXCLUSIVE USE OF A VDOT-CERTIFIED AGGREGATE. THE QUALITY CONTROL PLAN SHALL BE SUBMITTED TO THE COUNTY ENGINEER FOR REVIEW AND APPROVAL.

4.) FLOWABLE FILL MAY BE USED AS AN ALTERNATE TO AGGREGATE OR SELECT MATERIAL. FLOWABLE FILL SHALL MEET THE RÉQUIREMENTS OF VDOT SPECIAL PROVISIONS FOR FLOWABLE BACKFILL. THE MATERIAL MUST BE PLANT-CERTIFIED TO PROVIDE A 28-DAY COMPRESSIVE STRENGTH BETWEEN 30 AND 200 PSI. A CERTIFICATE OF MIX DESIGN MUST BE SUBMITTED TO THE INSPECTOR PRIOR TO PLACING THE MATERIAL IN THE TRENCH. A MINIMUM OF FOUR 6 X 12 TEST CYLINDERS SHALL BE TAKEN EVERY 50 CY OF PLACEMENT. CYLINDERS SHALL BE TESTED BY A QUALIFIED TESTING LABORATORY FOR 28-DAY STRENGTH. RESULTS SHALL BE PROVIDED TO THE INSPECTOR'S OFFICE WITHIN 24 HOURS OF TESTING COMPLETION. THE COST OF ALL TESTING IS THE RESPONSIBILITY OF THE PERMITTEE. IF THE REPORT INDICATED THE COMPRESSIVE STRENGTHS ARE NOT BETWEEN 30 AMD 200 PSI, THE PERMITTEE WILL BE RESPONSIBLE FOR REMOVING AND REPLACING THE BACKFILL WITH ACCEPTABLE BACKFILL AND COMPLETING THE RESTORATION OF THE STREET AT NO COST TO THE COUNTY.

2016 ROAD & BRIDGE STANDARDS



MQ M DRAWN BY DESIGNED CHECKED BY 2/25/2019

REFLECTING TOMORROY

www.balzer.cc

Staunton Harrisonburg

RESIDENTIAL LAND DEVELOPMENT ENGINEERING

SITE DEVELOPMENT ENGINEERING

LAND USE PLANNING & ZONING

LANDSCAPE ARCHITECTURE

LAND SURVEYING ARCHITECTURE STRUCTURAL ENGINEERING

TRANSPORTATION ENGINEERING

ENVIRONMENTAL & SOIL SCIENCE

WETLAND DELINEATIONS & STREAM EVALUATIONS

Balzer and Associates, Inc.

1208 Corporate Circle

Roanoke, VA 24018

540-772-9580

FAX 540-772-8050

CHRISTOPHER P. BURNS 🖟

Lic. No.047338 6/3/19

PARK

I TECHNOLOGY FOTURE IMPROVEMENTS
ROFILE & DETAILS

HAVEN

OD

**DETAIL** 

ROAD PROFILE

AS NOTED SCALE **REVISIONS:** 

4/18/2019 5/16/2019

SHEET NO.

201.03

VIRGINIA DEPARTMENT OF TRANSPORTATION

2016 ROAD & BRIDGE STANDARDS

STA. 2+46 TO 4+00 DESIGN SPEED = 30 MPH DESIGN ADT = 5,000

- BITUMINOUS PAVEMENT

SEE DETAIL

- BITUMINOUS PAVEMENT SEE DETAIL

STA. 1+46 TO 2+46

DESIGN SPEED = 30 MPH

DESIGN ADT = 5,000

R.O.W. = 75

26'

1/4":1' ---

26'

1/4":1'

NOTE: G.C. SHALL ENSURE THAT A MINIMUM CLEAR ZONE OF 1' IS MAINTAINED

BETWEEN THE BACK OF CURB AND ANY ABOVE-GROUND UTILITY STRUCTURES.

- VDOT STD CG-6

20.5

- VDOT STD CG-6

VDOT STD CG-6 -

20.5

VDOT STD CG-6-

NOTE: G.C. SHALL ENSURE THAT A MINIMUM CLEAR ZONE OF 1' IS MAINTAINED BETWEEN THE BACK OF CURB AND ANY ABOVE-GROUND UTILITY STRUCTURES.