ROANOKE, VA 24019

(540) 309-0266 CURRENT ZONING: R-3 WITH SPECIAL EXCEPTION FOR PRIVATE ROADS

PROPOSED USE: SINGLE FAMILY DETACHED RESIDENTIAL, ZERO LOT LINE TOTAL SITE ACREAGE: 15.9 ACRES +/-MINIMUM LOT AREA REQUIRED: 9,000 SQUARE FEET

MAXIMUM DENSITY ALLOWED: 4.0 DWELLINGS PER ACRE PROPOSED DENSITY: 2.3 PER ACRE MAXIMUM LOT COVERAGE: 50% MAXIMUM IMPERVIOUS SURFACE COVERAGE: 75%

PROPOSED MAXIMUM LOT COVERAGE: 30%; PROPOSED MAXIMUM IMPERVIOUS SURFACE COVERAGE: 40% MINIMUM LOT WIDTH REQUIRED: 60 FEET AT MINIMUM FRONT YARD SETBACK LINE MINIMUM FRONT YARD SETBACK: 25 FEET

MINIMUM SIDE YARD SETBACK: 20 FEET ON OPEN SIDE MINIMUM REAR YARD SETBACK: 25 FEET

ACCESSORY BUILDINGS: NOT CLOSER THAN 5 FEET TO A SIDE OR REAR LOT LINE, NOT ALLOWED IN FRONT YARD NOT MORE THAN 1 ACCESSORY BUILDING PERMITTED PER LOT

MAXIMUM HEIGHT OF BUILDINGS AND STRUCTURES: 35 FEET MINIMUM OPEN SPACE REQUIRED: 10% OF GROSS ACREAGE OF TRACT (1.6 ACRES)

OPEN SPACE PROVIDED: 20.7% (3.29 ACRES)

MINIMUM PARKING REQUIRED: 2 PER DWELLING UNIT PARKING PROVIDED: 2 CAR GARAGE ON EACH LOT

## GENERAL NOTES

THE BOUNDARY IS THE DIRECT RESULT OF A FIELD SURVEY BY LUMSDEN ASSOCIATES, P.C. DATED 2017.

TOPOGRAPHY DATA BASED ON A FIELD SURVEY BY LUMSDEN ASSOCIATES, P.C. IN 2017. THIS PROJECT IS NOT LOCATED WITHIN THE LIMITS OF A 100 YEAR FLOOD BOUNDARY AS DESIGNATED BY FEMA. THIS OPINION IS BASED ON AN INSPECTION OF THE FLOOD INSURANCE RATE MAP, MAP NUMBER 51023C0460C, DATED DECEMBER 17, 2010, AND HAS NOT BEEN VERIFIED BY ACTUAL FIELD ELEVATIONS.

A TITLE REPORT WAS NOT FURNISHED FOR THIS PROJECT.

ALL ROADS WITHIN THE DEVELOPMENT ARE PRIVATE AND WILL BE OWNED AND MAINTAINED BY A HOMEOWNER'S ASSOCIATION.

PUBLIC WATER SERVICE SHALL BE PROVIDED BY AQUA VIRGINIA, INC. PUBLIC SANITARY SEWER SERVICE SHALL BE PROVIDED BY THE WESTERN VIRGINIA WATER AUTHORITY

TRASH COLLECTION WILL BE PROVIDED BY A PRIVATE WASTE DISPOSAL COMPANY. SERVICE WILL BE PROVIDED BY KESSLER GARBAGE SERVICES. SIGNAGE SHALL BE IN ACCORDANCE WITH THE BOTETOURT COUNTY ZONING ORDINANCE. SEPARATE REVIEW AND APPROVAL WILL BE REQUIRED FOR ANY SIGNS.

SITE LIGHTING AS SHOWN ON SHEET 3 WILL BE PROVIDED BY AEP. LIGHTING SHOWN HEREON IS FOR REFERENCE ONLY. ALL DESIGN ELEMENTS, INCLUDING FOUNDATION. TO BE PERFORMED BY AEP OR OTHERS. LIGHTING SHALL BE ACUITY LIGHTING'S AMERICAN REVOLUTION DELUXE 150 WATT METAL HALIDE FULL CUTOFF POST TOP LUMINAIRES. POLE HEIGHT WILL BE 14 FEET. TOTAL HEIGHT INCLUDING POLE AND LAMP WILL BE APPROXIMATELY 15.5 FEET.

THE DEVELOPMENT SHOWN HEREON MAY RESULT IN AN ESTIMATED 14 SCHOOL AGE CHILDREN. THIS ESTIMATE IS BASED ON METHODOLOGY PROVIDED BY BOTETOURT COUNTY PLANNING DEPARTMENT OR 0.375 SCHOOL AGE CHILDREN PER DWELLING.

NO CONSTRUCTION/FIELD REVISIONS ARE ALLOWED WITHOUT THE APPROVAL OF THE CONSULTING ENGINEER, THE VIRGINIA DEPARTMENT OF TRANSPORTATION, AND THE

13. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CLEAN OUT THE EXISTING STORM SEWER SYSTEM WITHIN EXISTING DEVELOPMENTS SHOULD THESE SYSTEMS BECOME SILTED OR BLOCKED IN ANY WAY DUE TO THE CONSTRUCTION OF THIS PROPOSED DEVELOPMENT.

## CONSTRUCTION NOTES

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT EDITION OF VDOT'S ROAD AND BRIDGE STANDARDS. PRIOR TO THE COMMENCEMENT OF ANY DIGGING, ALTERATION, OR CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY, A PERMIT SHALL BE APPLIED FOR AND OBTAINED BY

THE CONTRACTOR FROM THE VIRGINIA DEPARTMENT OF TRANSPORTATION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE COUNTY OF BOTETOURT, VDOT, AND THE ENGINEER OF ANY CHANGES OR CONDITIONS ATTACHED TO PERMITS OBTAINED FROM ANY AUTHORITY ISSUING PERMITS.

NO SUBSOIL INVESTIGATIONS HAVE BEEN FURNISHED TO THE DESIGN ENGINEER.

THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY EXISTING CONDITIONS PRIOR TO STARTING CONSTRUCTION.

THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO STARTING CONSTRUCTION. CALL MISS UTILITY AT 1-800-552-7001 AT LEAST THREE WORKING DAYS BEFORE ANY EXCAVATION.

THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY OWNER FOR ALL UTILITY ADJUSTMENTS/RELOCATIONS.

THE CONTRACTOR SHALL PROVIDE A STORAGE CONTAINER FOR TEMPORARY STORAGE AND DISPOSAL OF LAND CLEARANCE DEBRIS AND BUILDING MATERIALS. ON—SITE BURIAL OF MATERIAL SHALL NOT BE PERMITTED.

## **GRADING NOTES**

SHEET 1 OF 1 REVISION DATE

303.02

103.08

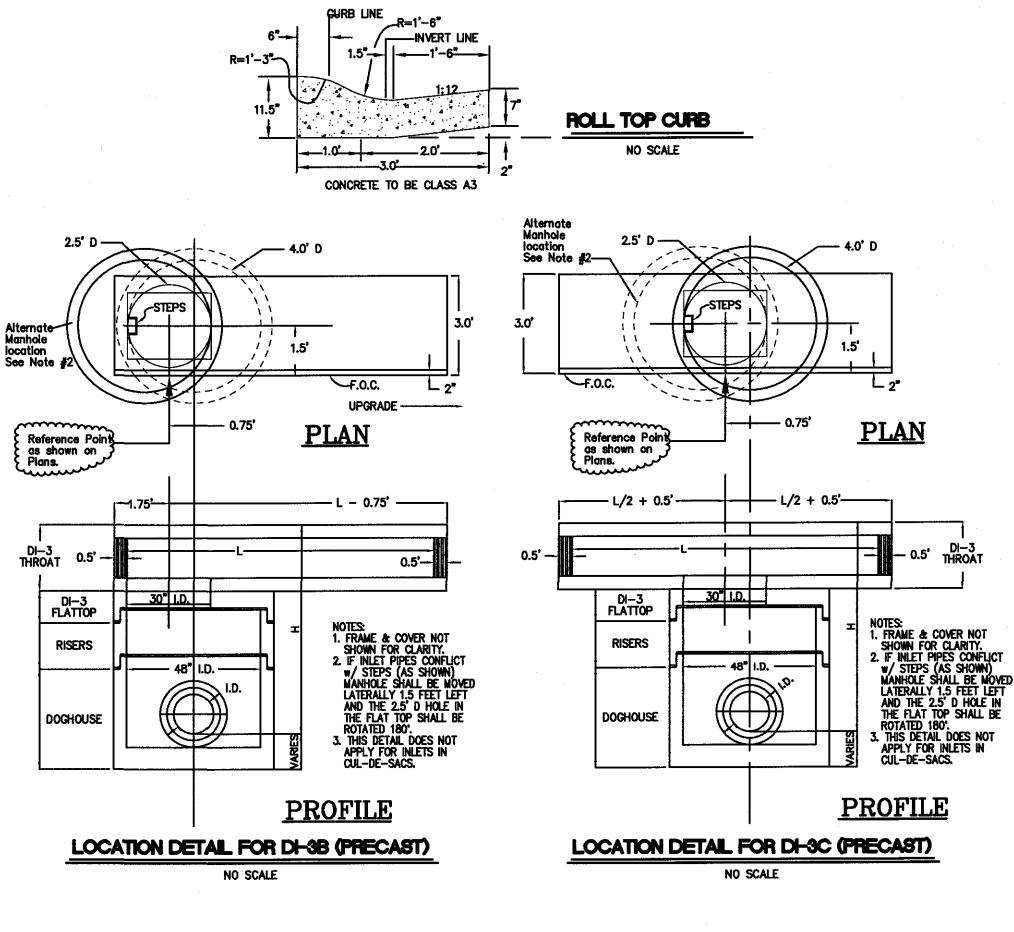
AREAS TO BE GRADED SHALL BE CLEARED OF ALL VEGETATION, STRUCTURES, AND OTHER PHYSICAL FEATURES IN PREPARATION OF GRADING. TOPSOIL SHALL BE REMOVED FROM THE CLEARED AREA AND STOCKPILED FOR FUTURE USE.

FILL MATERIAL SHALL BE FREE FROM ORGANIC MATTER AND ROCKS LARGER THAN 6 INCHES IN DIAMETER. FILL MATERIAL SHALL BE PLACED AND COMPACTED IN

EIGHT (8) INCH LOOSE LIFTS AND COMPACTED TO AT LEAST NINETY-FIVE (95) PERCENT OF THE MATERIAL'S MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698, A QUALIFIED GEOTECHNICAL ENGINEER, LICENSED IN THE STATE OF VIRGINIA, SHOULD BE CONSULTED CONCERNING SOIL STABILITY, SLOPE STABILIZATION, SOIL

COMPACTION, TESTING, AND OTHER SOIL CHARACTERISTICS. LUMSDEN ASSOCIATES ASSUMES NO RESPONSIBILITY OR LIABILITY RELATING TO FAILURES RESULTING FROM

NO SUBSURFACE SOILS INFORMATION HAS BEEN FURNISHED TO THE DESIGN ENGINEER (LUMSDEN ASSOCIATES, PC.). A QUALIFIED GEOTECHNICAL ENGINEER, LICENSED IN THE STATE OF VIRGINIA, SHOULD BE CONSULTED CONCERNING SOIL STABILITY, SLOPE STABILIZATION, SOIL COMPACTION, TESTING, AND OTHER SOIL CHARACTERISTICS. LUMSDEN ASSOCIATES ASSUMES NO RESPONSIBILITY OR LIABILITY RELATING TO FAILURES RESULTING FROM SAME.



**PAVEMENT SPECIFICATIONS** 

VARIES

40' PRIVATE

THE SUB-BASE SHALL BE APPROVED BY THE DEPARTMENT PRIOR TO THE PLACEMENT OF THE BASE. BASE SHALL BE APPROVED BY THE DEPARTMENT FOR DEPTH, TEMPLATE, AND COMPACTION BEFORE SURFACE IS APPLIED. THE

SURFACE LAYER SHALL BE APPROVED BY THE DEPARTMENT FOR DEPTH, TEMPLATE, AND COMPACTION. THE CONTRACTOR SHALL AUTHORIZE THE TESTING TO BE PERFORMED BY AN INDEPENDENT TESTING LAB FOR EACH LAYER OF

THE PAVEMENT STRUCTURE. TEST RESULTS SHALL BE SUBMITTED TO THE DEPARTMENT FOR APPROVAL. ALL TEST METHODS AND FREQUENCY OF TESTING SHALL BE IN ACCORDANCE WITH VDOT'S ROAD AND BRIDGE SPECIFICATIONS

4. EXISTING PAVEMENT IS TO BE SAW CUT AT ABUTTING EDGE WHERE NEW PAVEMENT IS TO MATCH. THE VERTICAL SAW CUT IS TO BE MADE THROUGH FULL PAVEMENT DEPTH. THE VERTICAL CUT SURFACE TO BE COATED WITH A

VPD

< 400

ROAD WIDTH

**VARIES** 

24' PAVEMENT

THE SIZE 21B AGGREGATE SHALL BE PRIMED WITH APPROXIMATELY 0.35 GAL/SY OF RC-250 ASPHALT AND COVERED WITH 16 TO 18 LBS/SY OF SIZE 8-P AGGREGATE BEFORE PLACING THE SM-9.5A.

NUMBER OF CBR

TEST REQUIRED

AT EACH INT. AND

1/500 = 4 REQ'D

PAVEMENT SPECIFICATION

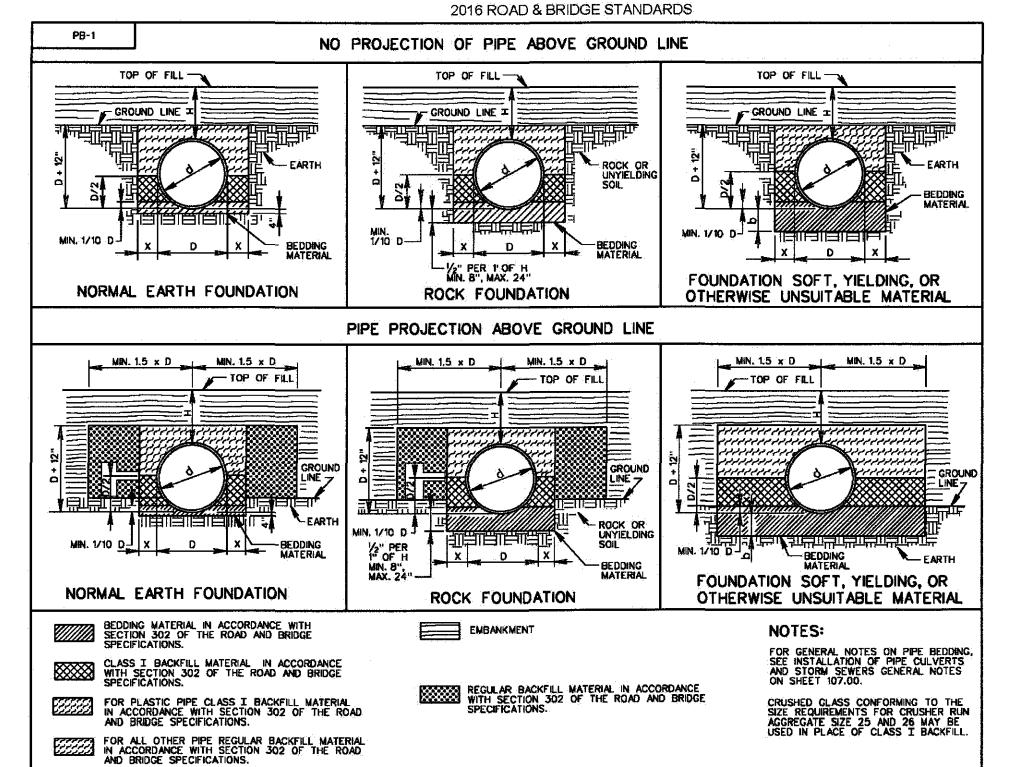
ASPH. CONCRETE SURFACE, TYPE SM-9.5A (1.5"),

ASPH. CONCRETE BASE, TYPE BM-25.0A (3"),

AGGREGATE SUBBASE, #21B (8")

ASPH. CONCRETE SURFACE, TYPE SM-9.5A (2"),

AGGREGATE SUBBASE, #218 (10")



INSTALL. OF PIPE CULVERTS AND STORM SEWERS

CIRC. PIPE BEDDING AND BACKFILL - METHOD "A"

VIRGINIA DEPARTMENT OF TRANSPORTATION

2016 ROAD & BRIDGE STANDARDS

40' PRIVATE ROAD ACCESS AND UTILITY EASEMENT

Limits of Bituminous Surface = 24'

10" Agg. — Centerline of Rig Base Course(21B) and Construction

TYPICAL PRIVATE ROAD SECTION

END VIEW

LENGTH OF PIPE

THE RESERVE THE PARTY OF THE PA

FLARED END SECTION

12" - 60" CONCRETE PIPE CULVERTS

VIRGINIA DEPARTMENT OF TRANSPORTATION

2016 ROAD & BRIDGE STANDARDS

SLOPE DETAIL

END-SECTION 12" - 60" PIPE

END SECTION DIMENSIONS

4" 2'-0" 2'-0" 4'-0" 2'-0"

6" 2'-3" †-9" 4'-0" 2'-6" 9" 2'-3" †-9" 4'-0" 3'-0" 9'4" 2'-11" 2'-1" 5'-0" 3'-6"

9½" 3'-7" 2'-6" 6'-1" 4'-0" 10¾" 4'-0" 2'-1" 6'-1" 4'-6"

1'-0" 4'-6" 1'-7¾" 6'-1¾" 5'-0"
1'-1½" 4'-10½" 2'-3¼" 7'-1¾" 5'-6"

1'-3" 5'-3" 2'-10½" 8'-1½" 6'-0" 1'-9" 5'-3" 2'-11" 6'-2" 6'-8"

48" 2'-0" 6'-0" 2'-2" 8'-2" 7'-0" 54" 2'-3" 5'-5" 2'-8|4" 8'-2|4" 7'-6" 80" 2'-11" 5'-0" 3'-3" 8'-3" 8'-0"

PIPE DIAMETER A B C D

PAY LINE

SPECIFICATION REFERENCE

SHEET 1 OF 4 REVISION DATE

107.01

SECTION X-X

Centerline of Right of Way

2016 ROAD & BRIDGE STANDARDS

ROUTE NUMBER

STREET NAME

SOUTH RIDGE DRIVE

SANDERSON RIDGE DRIVE

SOUTH RIDGE DRIVE

SANDERSON RIDGE DRIVE

ALTERNATE END-SECTION 12" - 60" PIPE

HUB END ON OUTLET END-SECTION SPIGOT END ON INLET END-SECTION

PLAN

PAY LINE

SECTION X-X

- PAY LINE -

END SECTION DIMENSIONS

 PIPE DIAMETER
 A
 B
 C
 D
 E

 12"
 4"
 2"-0"
 4"-1"
 6"-1"
 2"-0"

8" 2'-3" 3'-10" 6'-1" 2'-6" 9" 2'-3" 3'-10" 6'-1" 3'-0" 9" 2'-1" 3'-2" 6'-1" 3'-6"

3"	2"-11"	3"-2"	6"-1"	5"-0"
10"	3"-7"	2"-8"	6"-3"	4"-0"
10)/2"	4'-0"	2"-1/2"	6"-1/2"	4'-6"
1"-0"	4'-6"	1"-7/2"	6"-1/2"	5"-0"
1"-1/2"	4'-10]/2"	3'-3/4"	8"-1/4"	5"-6"
1"-3"	5"-3"	2"-10]/4"	8"-1/4"	6"-0"
1"-6"	5"-3"	2"-11"	8"-2"	6"-6"
1"-6"	5"-3"	2"-11"	8"-2"	6"-6"

2'-0" 6'-0" 2'-2" 8'-2" 7'-0"
2'-3" 5'-5" 2'-11" 8'-4" 7'-6"
2'-6" 5'-0" 3'-3" 8'-3" 8'-0"

AND THE VIRGINIA TEST METHODS MANUAL

END VIEW

**VDOT** 

ROAD AND BRIDGE STANDARDS

REVISION DATE SHEET 1 OF 1

102.01

SPECIFICATION REFERENCE

TACK COAT OF BITUMINOUS MATERIAL, TYPE RC-250 OR APPROVED EQUAL.

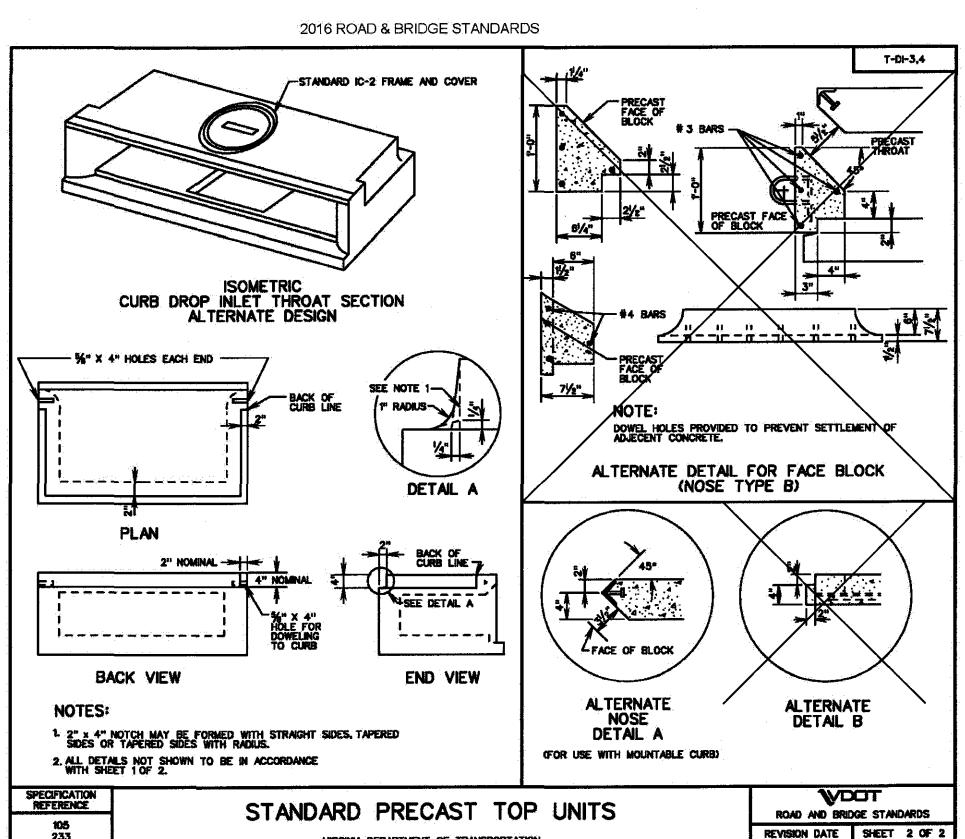
FROM STATION TO STATION

10+15.35 TO 10+29.44

(WITHIN EXIST. VDOT R/W)

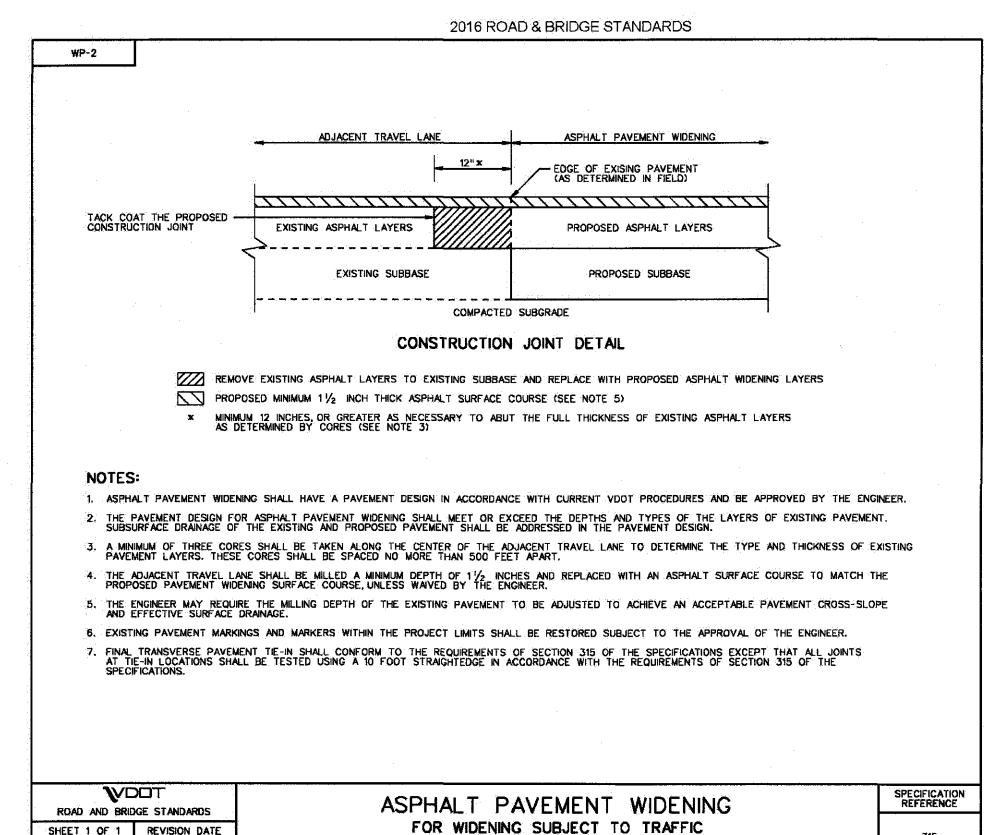
ALL REMAINING WITHIN PRIVATE R/W

1. THE MATERIAL FOR THIS PROJECT SHALL HAVE A MINIMUM CBR VALUE OF 4.0 OR AS APPROVED BY THE MATERIALS ENGINEER.



VIRGINIA DEPARTMENT OF TRANSPORTATION

2016 ROAD & BRIDGE STANDARDS



VIRGINIA DEPARTMENT OF TRANSPORTATION

2016 ROAD & BRIDGE STANDARDS

LUMSDEN ASSOCIATES, P.C. ENGINEERS-SURVEYORS-PLANNERS ROANOKE, VIRGINIA

THOMAS C. DALE Lic. No. 033002

OTES ANI DETAILS

4

July 25, 201

AS SHOWN 2016-003

SHEET 2 OF 14