

# **TAZEWELL COUNTY PLANNING COMMISSION**

## ***Regular Meeting***

***November 13<sup>th</sup>, 2025 - 6:30 P.M. (THURSDAY)***

### ***REVISED A G E N D A***



- 6:30 p.m. 1. Call to Order
- 6:32 p.m. 2. Invocation and Pledge of Allegiance
- 6:35 p.m. 3. Welcome Visitors
- 6:37 p.m. 4. Approval of the Agenda Format - Additions/Deletions
- 6:40 p.m. 5. Approval of the October 9<sup>th</sup>, 2025 Meeting Minutes
- 6:45 p.m. 6. Items for Discussion:
  - Debbie Gunter Planning Commission Memorandum (6/6/1991)
  - **Monk Mining Supply Division**
  - **Stephens Erosion & Sediment Control Plan**
- 7:00 p.m. 7. Subcommittee Reports
- 7:05 p.m. 8. **Engineering Report**
  - **Richlands flooding**
- 7:15 p.m. 9. **CITIZEN COMMENTS (TWO (2) MINUTES PER SPEAKER)**
- 7:18 p.m. 10. Member Concerns
- 7:30 p.m. 11. Adjourn – Thursday, December 11th, 2025 – 6:30 p.m.

VIRGINIA: AT A REGULAR MEETING OF THE TAZEWELL COUNTY PLANNING COMMISSION, HELD AT THE COUNTY ADMINISTRATION BUILDING, LOCATED AT 197 MAIN STREET, IN THE TOWN OF TAZEWELL, VIRGINIA, ON THE 13th DAY OF NOVEMBER, 2025, THE FOLLOWING RESOLUTION WAS ADOPTED, UPON A MOTION AND SECOND:

Resolution No.: 25-11-001

Date: November 13, 2025

**RESOLUTION GRANTING VARIANCE TO SUBDIVISION ORDINANCE FOR**

Parcel Number: 039A0026A

Belonging to: JOHN G. GUNTER and DEBORAH J. GUNTER  
(Grantees for Recordation Purposes only)

Address: \_\_\_\_\_

**Whereas**, it appears to the Commission that a certain plat was recorded by Robert C Chapman and Margaret Champman, dated October 1977, in the Tazewell County Circuit Court Clerk's Office in plat book 12, page 133, with all parcels shown thereon to contain more than five acres such that the aforesaid plat did not come within the jurisdiction of the Tazewell County Subdivision Ordinance as written at that time;

**Whereas**, it further appears that the same Robert C. Chapman and Margaret Chapman ("Chapmans") nevertheless executed instruments purporting to convey property represented on the aforesaid plat by descriptions containing less than five acres in violation of the County's subdivision Ordinance;

**Whereas**, it further appears such violations of the subdivision ordinance occurred between 1977 and 1991;

**Whereas**, in 1991 the Commission caused to be recorded among the land records of the County, in Deed Book 621 at page 500, a notice that the Chapmans had violated the ordinance; however, the current Commission, Commission Staff and

This Instrument Prepared by:  
C. Eric Young, Esq. (VSB40382),  
Interim County Attorney  
197 Main Street  
Tazewell, Virginia 24651  
276-385-1208

Commission Counsel are unaware nor unable to locate any evidence of any other enforcement action against the Chapmans or any other resolution thereof;

**Whereas**, the Chapmans conveyed to John G. Gunter and Deborah J. Gunter ("Gunters") a portion of the real property described on the aforesaid plat, being parcel number 039A0026A by deed dated May 19, 1987 and recorded in the aforesaid Clerk's Office in deed book 563 page 621, prior to the Commission's recording the aforesaid notice in 1991, and Ms. Gunther having appeared before the Commission and represented that neither she or her husband were aware of any violation of the subdivision ordinance by the Chapmans, until the notice by the Commission was disclosed to them when they attempted to convey the property into trust to secure certain financing in 2025;

**Whereas**, it appears that the Gunthers have occupied the property described in the 1987 deed without incident and without any harm to the public or County since 1987;

**Whereas**, the Commission does not desire to maintain any cloud on the Gunther's title due to the Chapmans' violation of the subdivision ordinance thirty-eight years ago;

**Now Therefore, BE IT RESOLVED**, that the Commission hereby grants a variance to the Subdivision Ordinance to recognize that certain parcel of real property described in a deed to John G. Gunter and Deborah J. Gunter dated May 19, 1987 and recorded in Deed Book 563 page 621 in the aforesaid Clerk's Office and described in a deed of correction recorded in Deed Book 573, page 368 correcting the description in

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the aforesaid deed in the aforesaid Clerk's Office as a permissible conveyance by the Chapmans and hereby releases any claim for enforcement of the subdivision ordinance with respect to any violation by the Chapmans by reason of such conveyance so as to negate, relieve, and remove any cloud on the title as may have been created by that certain notice dated June 6<sup>th</sup> , 1991 and recorded in the aforesaid Clerk's Office in Deed Book 621 at page 500.

It is so **RESOLVED** this 13<sup>th</sup> day of November, 2025.

**ATTEST:** \_\_\_\_\_  
Robert Moss, Chairman

RECORDED VOTE:  
MEMBERS PRESENT: \_\_\_\_\_  
MEBERS ABSENT: \_\_\_\_\_  
AYES: \_\_\_\_\_  
NAYS: \_\_\_\_\_  
ABSTENTIONS: \_\_\_\_\_

COMMONWEALTH OF VIRGINIA,  
COUNTY OF TAZEWELL, to-wit:

The foregoing instrument was acknowledged before me, \_\_\_\_\_ (printed Notary's name), a Notary Public in and for the Jurisdiction aforesaid, on the \_\_\_\_ day of \_\_\_\_\_, 2025, by \_\_\_\_\_.  
My Notary Commission expires: \_\_\_\_\_. My Notary Registration No. is: \_\_\_\_\_.

\_\_\_\_\_  
Notary Public (SEAL)

Approved As to Form: \_\_\_\_\_  
C. Eric Young, Esq.,  
Interim County Attorney

This Instrument Prepared by:  
C. Eric Young, Esq. (VSB40382),  
Interim County Attorney  
197 Main Street  
Tazewell, Virginia 24651  
276-385-1208

1942

BOOK 621 p. 590

This MEMORANDUM made this the 6<sup>th</sup> day of June, 1991 by the TAZEWELL COUNTY PLANNING COMMISSION provides as follows:

WHEREAS, Robert C. Chapman and Margaret A. Chapman were formerly the owners of a 50+ acre tract or parcel of real estate located on the waters of Bluestone River in Tazewell Co., Virginia which property was conveyed to them by Mary K. Stowers et vir by deed dated October 12, 1965 of record in the Clerk's Office of the Circuit Court of Tazewell County, Virginia in Deed Book 322, at page 261.

WHEREAS, the said Robert C. Chapman and Margaret A. Chapman filed a plat entitled "Tazewell County, Virginia Clearfork Mag. District Property of Robert C. Chapman et ux Sub-division No. 2 by H.L. Louthen, date Oct. 1977" of record in said Clerk's Office in Plat Book 12, at page 133 propoing to divide the aforesaid tract or parcel into lots of five acres or more each and establishing a 50 foot right-of-way to provide access to said lots.

WHEREAS, thereafter the said Robert C. Chapman and Margaret A. Chapman proceeded to sell lots and parcels from said property of less than five acres each and not in accordance with the aforesaid plat filed of record in said Clerk's Office in Plat Book 12, at page 133. No subdivision plat was approved for the division of the aforesaid property into lots or parcels of less than five acres each and where a new road was provided;

\*WHEREAS, the division of the aforesaid property by Robert C. Chapman and Margaret A. Chapman is and was in violation of the Tazewell County Sub-division Ordinance enacted May 22, 1982 and the Tazewell County Subdivision Ordinance enacted December 21, 1977.

NOW, THEREFORE, notice is hereby given that the division and sale of tracts or parcels of land from that certain 50+ acre tract situate on the waters of Bluestone River, Clearfork Magisterial District, Tazewell County, Virginia acquired by Robert C. Chapman and Margaret A. Chapman by deed dated October 12, 1965 of record in the Clerk's Office of the Circuit Court of Tazewell County, Virginia in Deed Book 322, at page 261 is in violation of the Tazewell County Subdivision Ordinance.

WITNESS the following signature and seal.

TAZEWELL COUNTY PLANNING COMMISSION

By:   
Catherine S. Seyler, Chairman

STATE OF VIRGINIA, COUNTY OF TAZEWELL, to-wit:

BOOK 621 PAGE 591

I, Stephen E. Arce, a Notary Public in and for the County and State aforesaid, do hereby certify that Catherine S. Seyler, Chairman of the Tazewell County Planning Commission, whose name is signed to the foregoing MEMORANDUM has acknowledged the same before me this the 6<sup>th</sup> day of June, 1991.

My commission expires April 23, 1993.

SEA  
Notary Public

FILED IN THE Clerk's Office of Tazewell Circuit Court June 11, 1991  
This fee was presented and upon the annexed Certificate of acknowledgement admitted to record at 12:24 P.M.

Scott H. Buchanan Deputy Clerk

Mr. John G. Gunter  
Rt. 2, Lot 1  
Skyland Trailer Park  
N. Tazewell, Va. 1/22/88

BOOK 573 PAGE 368

THIS DEED OF CORRECTION, made and entered into on this 31<sup>st</sup> day of December, 1987, by and between MARGARET G. CHAPMAN LONNEMAN and FRED H. LONNEMAN, her husband, and ROBERT C. CHAPMAN, unmarried, by his Attorney-in-Fact, James W. Dudley, parties of the first part, and JOHN G. GUNTER and DEBORAH J. GUNTER, his wife, parties of the second part, whose mailing address is Route 2, Lot 1  
SKYLAND TRAILER PARK, N. TAZEWELL, VA 24630

W I T N E S S E T H:


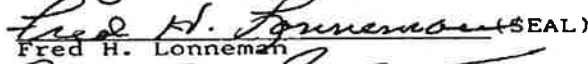
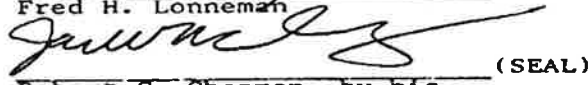
WHEREAS, by deed dated June 1, 1987, <sup>recorded in Deed Book 563, pg. 621</sup> the parties of the first part herein conveyed 0.80 Acres, more or less, situate on Routes 19-460, between Bluefield and Tazewell, Virginia, unto the parties of the second part; and,

WHEREAS, it has been discovered that there was an error in the description in said deed.

NOW, THEREFORE, in order to correct said erroneous description in said deed, the parties of the first part do hereby grant and convey, with covenants of general warranty of title, unto the said parties of the second part, as tenants by the entirety, with full and complete rights of survivorship as at common law, all that certain real estate situate on Routes 19-460, between Bluefield and Tazewell, Virginia, containing 0.80 Acres, more or less, together with the improvements thereon and appurtenances thereunto belonging, more particularly bounded and described as follows, to-wit:

"BEGINNING at a point which point is the eastern boundary of a 50' right of way shown on a certain map entitled "Tazewell County, VA Clear Fork Mag. District. Property of Robert C. Chapman et ux Subdivision No. 2 By H. L. Louthen C.L.S No. 754 Date Oct. 1977 Scale 0' - 400''; thence with the right of way line of U.S. Routes 19-460, S. 42° 11' W. 196.69 feet to a point; thence leaving said right of way of 19-460 N. 47° 45' W. 190.00 feet to an iron pin; thence N. 42° 51' E. 163.49 feet to a point in said eastern line of said right of way; thence S. 63° 45' E. 112.15 feet to the point of BEGINNING." There is EXCEPTED and RESERVED from this conveyance the 50 foot right of way as shown on said map.

WITNESS the following signatures and seals.

  
 Margaret G. Chapman Lonneman  
 (SEAL)  
 Fred H. Lonneman  
 (SEAL)  
 Robert C. Chapman, by his  
 Attorney-in-Fact, James  
 W. Dudley

STATE OF Florida,  
COUNTY OF Marion, TO-WIT:

The foregoing was acknowledged before me by Margaret G. Chapman Lonneman and Fred H. Lonneman, this 31st day of December, 1987.

NOTARY PUBLIC STATE OF FLORIDA  
BY COMMISSION EXP. NOV. 29, 1991  
BONDED THRU GENERAL 195. UND.

My commission expires \_\_\_\_\_

  
Notary Public

STATE OF VIRGINIA,  
COUNTY OF TAZEWELL, TO-WIT:

The foregoing was acknowledged before me by Robert C. Chapman, by his Attorney-in-Fact, James W. Dudley, this 4th day of JAN., 1987.

My commission expires 2/20/91.

  
Notary Public

VIRGINIA: In the Clerk's Office of Tazewell Circuit Court January 6, 1988  
This deed was presented and upon the annexed Certificate of acknowledgment admitted to  
record at 10:30 A.M. The tax imposed by 58-54.1 of the Code has been paid in  
amount of \$ Seal of Convention

Teste:  Deputy Clerk



THIS DEED, made and entered into on this the 12th day of October, 1965, by and between MARY KATE STOWERS and EARL STOWERS, her husband, parties of the first part; and ROBERT C. CHAPMAN and MARGARET A. CHAPMAN, his wife, as joint tenants, with right of survivorship, parties of the second part;

- : W I T N E S S E T H : -

THAT FOR and in consideration of the sum of TEN (\$10.00) DOLLARS, cash in hand paid, and other good and valuable consideration paid to the parties of the first part herein by the parties of the second part herein, the receipt and sufficiency of all which is hereby acknowledged, the said parties of the first part do hereby grant and convey, bargain and sell unto the parties of the second part, as joint tenants, with right of survivorship, and to the survivor of them, WITH COVENANTS OF GENERAL WARRANTY OF TITLE, all of the following described real estate, together with any and all improvements thereon and the appurtenances thereunto belonging, bounded and described according to recent survey made by Mr. Frank Cox, C. E. (1954), all of which property is located in Tazewell County, Virginia, and according to survey is as follows, to-wit:

Situated upon the waters of Bluestone River, as follows: BEGINNING at a concrete Highway Marker on the north side of Highway Nos 19 & 460; thence, N. 42° 51' E. 870.84 feet along the north side of said Highway to a point on said line; thence, leaving same N. 34° 48' W. 543.89 feet part of the way through the lands of said Mrs. Stowers and the remainder of the distance by the line between said Mrs. Stowers and Ann Taylor to a point at the west side of a locust tree and a small angle in fence; thence, N. 32° 59' W. 925.16 feet with and near with fence to a corner fence post corner or line of said Mrs. Ann Taylor and a corner to Elbert Price; thence, leaving the lands of said Ann Taylor and by lines between said Mrs. Stowers and said Price, S. 86° 00' W. 480.0 feet with fence to a corner fence post; thence, N. 21° 15' W. 204.46 feet more or less to a point in a private road; thence, along the center line of said road S. 83° 28' W. 400.54 feet to a point; thence, N. 84° 18' W. 482.06 feet to a point in the said road, southwest of the forks of said road at or

near the center line of a gate, corner or line of lands of the Estate of John Carter; thence, leaving the lands of said Price and by line between said Mrs. Stowers and said Carter lands S. 33° 08' E. 854.69 feet to a point at intersection of fences little to the south of top of hill, corner to lands of N. R. Hodock; thence, leaving the Carter lands and by the said Hodock S. 26° 56' E. 1148.0 feet more or less to maple tree; thence, S. 33° 08' E. 707.0 feet, more or less to a point on the north side line of said Highway; thence, leaving the lands of said Hodock and along the north side line of said Highway N. 43° 06' E. 418.65 feet to the BEGINNING.

And being the same real estate conveyed to the party of the first part herein, Mary Kate Stowers, by Theodore E. White and Angie E. White, his wife, by deed dated the 3rd day of October, 1955, which deed is recorded in the Office of the Clerk of the Circuit Court of Tazewell County, Virginia, in Deed Book 244 at page 517, to which deed reference is here made.

LAW OFFICES  
M. CROCKETT HUGHES, JR.

Delivered  
M. Crocke  
Hughes, J  
Atty.  
10/28

Map mailed  
Stanley K  
790 West  
Monroe  
Wytheville  
VA  
1/4/

PLAT BOOK 12  
PAGE 133  
PLAT CARD 3861

*See Deed Book 621 Page 590  
for document presenting to affect  
title.*

THIS DEED, made and entered into on this the 12th day of October, 1965, by and between MARY KATE STOWERS and EARL STOWERS, her husband, parties of the first part; and ROBERT C. CHAPMAN and MARGARET A. CHAPMAN, his wife, as joint tenants, with right of survivorship, parties of the second part;

- : N I T H E E S E T H : -

THAT FOR and in consideration of the sum of TEN (\$10.00) DOLLARS, cash in hand paid, and other good and valuable consideration paid to the parties of the first part herein by the parties of the second part herein, the receipt and sufficiency of all which is hereby acknowledged, the said parties of the first part do hereby grant and convey, bargain and sell unto the parties of the second part, as joint tenants, with right of survivorship, and to the survivor of them, WITH COVENANTS OF GENERAL WARRANTY OF TITLE, all of the following described real estate, together with any and all improvements thereon and the appurtenances thereunto belonging, bounded and described according to recent survey made by Mr. Frank Cox, C. E. (1954), all of which property is located in Tazewell County, Virginia, and according to survey is as follows, to-wit:

Situated upon the waters of Bluestone River, as follows: BEGINNING at a concrete Highway Marker on the north side of Highway Nos 19 & 460; thence, N. 42° 51' E. 870.84 feet along the north side of said Highway to a point on said line; thence, leaving same N. 34° 48' W. 543.89 feet part of the way through the lands of said Mrs. Stowers and the remainder of the distance by the line between said Mrs. Stowers and Ann Taylor to a point at the west side of a locust tree and a small angle in fence; thence, W. 32° 59' W. 925.16 feet with and near with fence to a corner fence post corner or line of said Mrs. Ann Taylor and a corner to Elbert Price; thence, leaving the lands of said Ann Taylor and by lines between said Mrs. Stowers and said Price, S. 86° 00' W. 480.0 feet with fence to a corner fence post; thence, N. 21° 15' W. 204.46 feet more or less to a point in a private road; thence, along the center line of said road S. 83° 28' W. 400.54 feet to a point; thence, N. 84° 18' W. 482.06 feet to a point in the said road, southwest of the forks of said road at or

near the center line of a gate, corner or line of lands of the Estate of John Carter; thence, leaving the lands of said Price and by line between said Mrs. Stowers and said Carter lands S. 33° 08' E. 854.69 feet to a point at intersection of fences little to the south of top of hill, corner to lands of N. R. Hodock; thence, leaving the Carter lands and by the said Hodock S. 26° 56' E. 1148.0 feet more or less to maple tree; thence, S. 33° 08' E. 707.0 feet, more or less to a point on the north side line of said Highway; thence, leaving the lands of said Hodock and along the north side line of said Highway N. 43° 06' E. 418.65 feet to the BEGINNING.

And being the same real estate conveyed to the party of the first part herein, Mary Kate Stowers, by Theodore E. White and Angie E. White, his wife, by deed dated the 3rd day of October, 1955, which deed is recorded in the Office of the Clerk of the Circuit Court of Tazewell County, Virginia, in Deed Book 244 at page 517, to which deed reference is here made.

LAW OFFICES  
M. CROCKETT HUGHES, JR.

Delivered  
M. Crockett  
Hughes, Jr.  
Atty.  
10/28

Map mail:  
Stanley I  
790 West  
Monroe  
Wytheville  
VA  
1/4,

PLAT BOOK 12 PAGE 133 PLAT CARD 3861

*See Deed Book 621 Page 595  
to verify platting to offset*

It is distinctly understood that it is the purpose and intent of this instrument to create and vest in the said Robert C. Chapman and Margaret A. Chapman, his wife, estates in the aforesaid real estate by entireties, to be held, used and enjoyed by them jointly throughout their joint lives, or until terminated by their joint action, and if not so terminated, in the survivor of them, in fee simple absolute, free and absolved from any claim or right therein; by, through, or on behalf of the heirs, administrators, executors, devisees or assignees of the deceased joint tenant.

WITNESS the following signatures and seals.



Mary Kate Stowers (SEAL)  
Mary Kate Stowers

Earl F. Stowers (SEAL)  
Earl Stowers

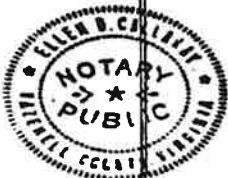
STATE OF VIRGINIA

COUNTY OF TAZEWELL, To-wit:-

I, Ellen W. Callaway, a Notary Public within and for the state and county aforesaid, do hereby certify that Mary Kate Stowers and Earl Stowers, her husband, whose names are signed to the foregoing and hereto annexed deed bearing date the 12th day of October, 1965, have each personally acknowledged the same before me in my county and state aforesaid.

Given under my hand this 15<sup>th</sup> day of October, 1965.

My commission expires May 13, 1968.



Ellen W. Callaway  
Notary Public as aforesaid

VIRGINIA: In the Clerk's Office of Tazewell Circuit Court, Oct 18 1965  
This deed was presented and upon the annexed Certificate of acknowledgment admitted to record at 1:30 P.M.

Taste: R.P. Hawkins Deputy Clerk

THIS DEED OF TRUST, made and entered into on this the 15th day of October, 1965, by and between ROBERT C. CHAPMAN and MARGARET A. CHAPMAN, his wife, parties of the first part; and M. CROCKETT HUGHES, JR., TRUSTEE, of Bluefield, Tazewell County, Virginia, party of the second part;

- W I T N E S S E T H -

THAT FOR and in consideration of the sum of ONE (\$1.00) DOLLAR, cash in hand paid, the receipt of which is hereby acknowledged, and for the purposes and provisions of the trust herein created, the said parties of the first part do hereby grant and

2084

led to:  
1 Stowers  
2  
efield, Va.  
/28/65

THE LOCATION OF OVERHEAD AND/OR UNDERGROUND UTILITIES OR FACILITIES THAT ARE SHOWN ON THIS PLAT ARE BASED ON OBSERVABLE ABOVE GROUND STRUCTURES; NO EXCAVATIONS WERE PERFORMED TO FIELD LOCATE BURIED UTILITIES/FACILITIES, PRIOR TO ANY SITE CONSTRUCTION OR SITE EXCAVATIONS, CONTACT THE APPROPRIATE STATE UTILITY NOTIFICATION SERVICE/AGENCY FOR VERIFICATION OF UTILITY TYPE AND VERIFICATION OF ALL FIELD LOCATIONS OF ANY AND ALL UTILITY LINES.

MERIDIAN BASIS:  
DEED BEARING  
D.B. 1021, PG. 160



TAZEWELL BASEBALL BOOSTERS, INC.  
DEED BOOK 2016, PAGE 14003  
(096-A-0016A)

SCOTT CRAIG COLE  
DEED BOOK 874, PAGE 215  
PLAT - D.B. 874, PG. 217  
(095-A-0036)

TAZEWELL (TOWN OF)  
DEED BOOK 867, PAGE 1  
P.B. 44, PG. 124  
(095-A-0036D)

MONK MINING SUPPLY, INC.  
DEED BOOK 1021, PAGE 160 (TR.3)  
(096-A-0016)  
4.060± AC NEW TOTAL

????  
DEED BOOK ???, PAGE ???  
(096-A-0013P)

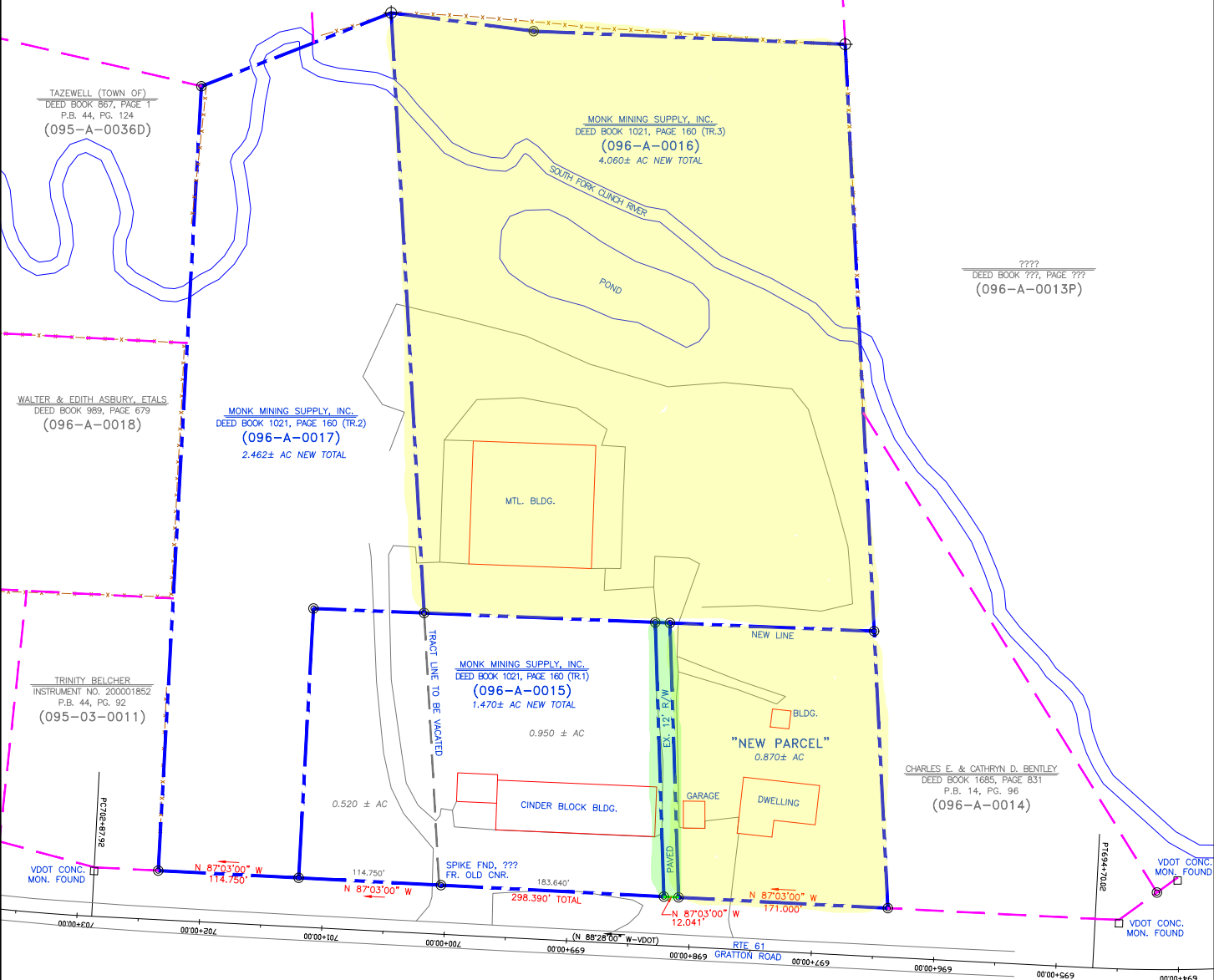
WALTER & EDITH ASBURY, ETALS  
DEED BOOK 989, PAGE 679  
(096-A-0018)

MONK MINING SUPPLY, INC.  
DEED BOOK 1021, PAGE 160 (TR.2)  
(096-A-0017)  
2.462± AC NEW TOTAL

TRINITY BELCHER  
INSTRUMENT NO. 200001852  
P.B. 44, PG. 92  
(095-03-0011)

MONK MINING SUPPLY, INC.  
DEED BOOK 1021, PAGE 160 (TR.1)  
(096-A-0015)  
1.470± AC NEW TOTAL

CHARLES E. & CATHRYN D. BENTLEY  
DEED BOOK 1885, PAGE 831  
P.B. 14, PG. 96  
(096-A-0014)



**LEGEND**

- CALCULATED POINT
- IRON PIN w/ CAP SET THIS SURVEY
- IRON PIN FOUND
- OLD CORNER FENCEPOST FOUND
- EASEMENTS/ RIGHT OF WAY
- BOUNDARY LINE
- ADJOINING PROPERTY LINE
- OLD FENCE LINE
- OHE



BAILEY ENGINEERING & LAND SURVEYING, INC., P.C.

EXCELLENCE IN ENGINEERING & SURVEYING  
P.O. BOX 155  
ROSEDALE, VIRGINIA 24280  
TELEPHONE: (276) 880-9027 FAX: (276) 880-1278

PARCEL LOCATED ON THE WATERS OF SOUTH FORK CLINCH RIVER IN THE JEFFERSONVILLE MAGISTERIAL DISTRICT OF TAZEWELL COUNTY, VIRGINIA



DRAWN BY: ACC  
CHECKED BY: RLB  
DATE: 11-12-2025  
SCALE: 1"=60'  
SHEET NUMBER: 1 OF 1

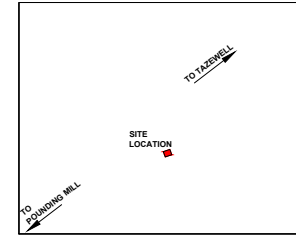
PROJECT NUMBER:  
**BELS25137-P103**

PLAT OF SURVEY SHOWING A DIVISION AND ADJUSTMENT OF A PORTION OF THE LANDS STANDING IN THE NAME OF MONK MINING SUPPLY, INC AS PER DEED BOOK 1021, PAGE 160.



LOCATION MAP  
N.T.S.

PROJECT LOCATION  
FROG LEVEL, VA. (TAZEWELL COUNTY)



VICINITY MAP  
N.T.S.

# ACCESS ROAD & CABIN SITE E&S PLAN

## FOR THE STEPHENS REVOCABLE TRUST FROG LEVEL, VIRGINIA

PREPARED FOR:  
**TIM STEPHENS**  
TBD WITTEN VALLEY RD  
TAZEWELL, VA 24651

**BELS PROJECT NO. 25121-C26**  
**NOV. 1, 2025**

### SHEET INDEX

SHEET NO	DESCRIPTION
1	PRE-CONSTRUCTION MAP
2	E & S CONTROL MEASURES/POST-CONSTRUCTION DRAINAGE
3	E & S NARRATIVE & DETAILS

**SRT**

PRE-CONSTRUCTION DRAINAGE  
FOR  
THE STEPHENS REVOCABLE TRUST  
ACCESS ROAD & CABIN SITE LOCATED AT  
TBD WITTEN VALLEY RD, TAZEWELL, VA 24651

Designed	ACC
Drawn	ACC
Checked	RLB
Date	11/1/2025
Scale	N.T.S.

PROJECT NO.  
**25121-C26**



**B&B**  
ENGINEERING & LAND SURVEYING, P.C.  
Providing the highest quality and accuracy  
in all our work.  
1100 N. 1st St.  
Martinsville, VA 24651  
Telephone: (540) 885-9027 Fax: (540) 885-1208

SHEET NO.







J M B I N V E S T M E N T C O M P A N Y , L L C

November 5, 2025

Mr. Kenneth Dunford  
Engineering Department  
Tazewell County

Dear Mr. Dunford,

Enclosed please find a copy of our Erosion and Sediment Control plan for the proposed access road & cabin site located on the south side of Rte. 91 Witten Valley Rd  $\pm$ 0.98 miles South of the intersection with Bus. Route 19, near Frog Level in Tazewell County, Va.

This project will be for the continued construction and re-grading of a cabin site on the tract which currently is undeveloped agricultural land. The site is currently graded, with the footer trenches excavated for a new cabin to be constructed. The site is currently disturbed. The construction plan for the site is anticipated to slightly increase the run-off in the area. Measures will be undertaken to minimize run-off during and after construction. Construction will continue once the permit is granted from your office. I hope that you will find this information sufficient for the requirements of the plan.

If you have any questions or concerns, please feel free to contact my engineer on the project, Richard L. Bailey of Bailey Engineering & Land Surveying, Inc., P.C. (276) 880-9027.

Sincerely,  
Andrew Crawford

**THE STEPHENS REVOCABLE TRUST**  
**Erosion and Sediment Control Plan - Tazewell County**  
**Site: TBD Witten Valley Rd**

**PROJECT DESCRIPTION:**

The purpose of this E & S Plan is to address existing access road drainage and cabin site construction & re-grading. The property consists of two tracts containing a total of 397.83 acres and is located 0.98 miles South along Route 91 from the intersection of Route 91 and Bus. Route 19, Southwest of the Town of Tazewell. The following Real Estate ID Numbers: 112A-0016 & 112B-01-TR-0003 in Tazewell County, Virginia indicates the current owner of the subject property is vested in the Stephens Revocable Trust. Total area to be disturbed by the development is 1.31 acres, of which the majority is fully re-graded and seeded with vegetation growing, leaving 14,095 Sq. Ft. disturbed at the cabin site. 26.409 acres draining to the point of interest. The property is zoned for Agricultural use. A Registered Land Disturber will be supplied by contractor and information provided to your office prior to continuing construction.

**EXISTING SITE CONDITIONS:**

Existing runoff flows into a tributary of West Fork of Plum Creek on the North side of the property. The access road is existing, having been completed approximately summer 2024 (as per aerial vgin imagery), all disturbed areas along said road is now vegetated. Drainage pipes are in-place along said road and at the West Fork crossing and un-named branch crossing. One of said pipes at the West Fork crossing, the Northern-most 36" pipe, is to be removed as per County comments. The access road is crowned. The proposed cabin site is currently the only actively disturbed area and footers have been excavated.

**Construction Schedule:**

Depending on weather conditions, construction will continue once approval is obtained from your office. Complete construction and site development is expected to take no longer than six (6) months. Beginning with the placement of the E & S structures prior to continuation of re-grading, and construction will be implemented.

### **Disturbed Area:**

The total disturbed area is 1.31 acres. This includes area that is fully re-graded & vegetated, leaving 0.342 acres of actively disturbed area at the Cabin site. Drainage analysis was performed for the entire 1.31ac utilizing the 10yr-24hr storm event, encompassing 26.409 acres of contributing drainage area. Pre-construction runoff = 6.92 cfs. Post construction analysis results in 9.846 cfs, which is an increase of 2.926 cfs. The access road is crowned and is mostly ditched along the cut or upper side of the road. There are 3 drainage pipes along said road. Drainage analysis was performed to check the capacity of the existing pipes. After drainage calculations were performed for D.A.-D, the existing 12" pipe was found to be deficient in handling the drainage. Drainage calculations provide that one 18" or two 12" HDPE or equivalent material pipes would be sufficient to handle the drainage. The 12" pipe will be replaced as described.

The existing drainage pattern of the area has presented no noticeable drainage or erosion problems, and none are anticipated by the proposed construction activity.

The existing site conditions will be utilized to reduce the potential for erosion. Every precaution will be undertaken to prevent sediment from entering the stream during the construction processes.

### **ADJACENT AREAS:**

The adjoining properties were as follows:

1. North: Route 91 - Witten Valley Rd./Lawn/ Residential
2. South: Woods/ Agricultural
3. East: Woods/ Agricultural
4. West: Woods/ Agricultural

The project will not appreciably affect the storm water runoff rate to the adjacent areas. The Point(s) of Interest is/are shown on the included maps. Please refer to the paragraph under "Disturbed Area" for conclusions reached on the run-off.

### **OFF-SITE AREAS:**

The removal of material excavated will not require an off-site area for collection and deposition.

## **GEOLOGY:**

According to the NRCS website the Soil Survey for Tazewell County, Virginia shows that the soil within the Drainage and Construction area is classified as: Allegheny loam (Map symbol-1B), Poplimento-Westmoreland complex (Map symbol 46C), & Westmoreland-Poplimento-Berks complex (Map symbol 53f). For more detail on these soils, please refer to the section entitled "Soil Properties" located at the end of this narrative.

## **REGIONAL HYDROLOGY:**

The surface water from the site flows into existing West Fork of Plum Creek. According to the Environmental Protection Agency (EPA) website, concerning water quality of the Cavitts Creek-Clinch River Watershed, the streams nearest the assessed site do not fall into the listing of Clean Water Act (CWA) Section 303d impaired waters.

## **CRITICAL EROSION AREAS:**

West Fork is the only critical erosion area identified in this project. All measures that are proposed to be implemented within this E&S plan are such that will minimize or negate any impact by this site to West Fork.

## **STRUCTURAL PRACTICES**

### 1. Silt Fence Barrier - 3.05:

Silt fence sediment barriers will be installed down slope of areas with minimal grades to filter run off sheet flow in areas where ground-disturbing activities take place. A silt fence barrier will be continually maintained on the lower sides of the construction area.

### 2. Outlet Protection - 3.18:

Outlet protection to be placed at the outlets of the existing pipes along the access road: D.A.-B, D.A.-C, & D.A.-D pipes.

## **EROSION AND SEDIMENT CONTROL MEASURES:**

Unless otherwise noted, all vegetative and structural erosion and sediment control practices shall be constructed and maintained according to minimum standards and specification in the DCR Erosion and Sediment Control Handbook. The minimum standards of the VESCR shall be adhered to unless otherwise waived or approved by a variance. Outlet protections (3.18) shall be placed at the pipes along the access road, namely D.A.-B, D.A.-C, & D.A.-D pipes. Silt fence shall be erected around the cabin site, along the edge of the disturbed area.

### **VEGETATIVE PRACTICES:**

1. Permanent Seeding - 3.32:

All disturbed areas of construction shall be stabilized with permanent vegetation. This stabilization will contain the appropriate levels of seed, fertilizer and lime for the purpose of establishing adequate stabilization.

### **MANAGEMENT PRACTICES:**

1. Grading operations will be minimized to lessen the impact to the natural conditions of the proposed construction property.
2. The contractor will be responsible for the installation and maintenance of all erosion and sediment control practices before, during, and immediately after construction activities.
3. After achieving stabilization, the temporary erosion and sediment controls will be cleaned up and removed.

### **STORMWATER RUNOFF CONSIDERATIONS:**

Because of the limited scope of remaining disturbed area (14,095 sq. ft.), as well as the topography of the location, there will be insignificant changes to the peak runoff at this location. Runoff on the proposed cabin site will be split along the top of the spur. The West side will sheet flow onto natural ground and some will be picked up by the road drainage. The East side drainage will have minimal disturbance following natural ground drainage and will be controlled with silt fence.

### **STORMWATER MANAGEMENT CONSIDERATIONS**

The proposed impervious area, as a result of this activity, is larger than pre-construction impervious area. This will result in a slight increase in the overall runoff cfs. As Per ms-19b(1); drainage area analysis for total drainage area to the point of analysis shows 2,628.4 acres of drainage area. Contributing drainage area of the project is 26.409 acres. This results in a total drainage area of 100 times greater than the project drainage area.

### **MAINTENANCE:**

Maintenance of the site and associated drainage structures will be the responsibility of the current and/or future owners. Sediment deposition behind the silt fencing will be closely examined until the site is fully stabilized and seeded. Frequent inspections and maintenance of sediment control measures while the construction activity is ongoing will be the responsibility of the owners or contractor.

## **CARLSON CIVIL SOFTWARE Drainage Calculations**

\* See calculations following this page

# **Pre-Construction Drainage**

Runoff Curve Number and Runoff

Thu Nov 6 13:58:19 2025

Project: PRE  
Location:  
Present

By: Date: 11/06/2  
Checked: Date:

1. Runoff Curve Number (CN)

Cover description	CN	Soil Group	Area (Acre)
Open Space-Fair (50% to 75% grass)	69	B	1.253
Dirt Streets (including ROW)	82	B	0.314
Woods (Fair)	60	B	24.842

CN (weighted): 60.7  
Total Area: 26.409 Acre

2. Runoff

Return Period: 10 YEAR  
Rainfall, P: 3.44 in  
Runoff, Q: 0.5334 in  
Runoff Volume: 1.1738 acre-ft  
51132.3 c.ft

Project: PRE  
Location:  
Present

By: Date: 11/06/2  
Checked: Date: 11/06/2

Curve Number : 61  
Length of Flow : 3231.80 ft  
Average Land Slope : 10.60 %  
Time of Concentration : 0.707 hrs, 42.4 mins

Project: PRE

By:

Date: 11/06/25

Location:

Checked:

Date:

Present

1. Data:

Drainage area:.....A = 26.4090Acres

Runoff Curve Number:.....CN = 61

Time of Concentration:.....Tc = 42.40 min

Storm Type:..... = II

Pond and swamp areas spread  
throughout watershed..... = 0.00 percent of A  
0.0000 Acres

2. Frequency.....yr = 10

3. Rainfall, P(24-hour).....in = 3.440

4. Initial abstraction, Ia..... = 1.2787

5. Compute Ia/P..... = 0.3717

6. Unit peak discharge, qu.....csm/in = 307.125

7. Runoff, Q.....in = 0.546

8. Pond & swap adjustment factor, ...Fp = 1.00

9. Peak Discharge, qp.....cfs = 6.920

# **Post Construction**

**D.A.-A**

Runoff Curve Number and Runoff

Thu Nov 6 14:07:38 2025

Project: DA-A  
Location:  
Present

By: Date: 11/06/2  
Checked: Date:

1. Runoff Curve Number (CN)

Cover description	CN	Soil Group	Area (Acre)
Gravel Streets (including ROW)	85	B	0.323
Woods (Fair)	60	B	9.815

CN (weighted): 60.8  
Total Area: 10.138 Acre

2. Runoff

Return Period: 10 YEAR  
Rainfall, P: 3.44 in  
Runoff, Q: 0.5378 in  
Runoff Volume: 0.4543 acre-ft  
19789.8 c.ft

Time of Concentration (SCS)

Thu Nov 6 14:08:21 2025

Project: DA-A  
Location:  
Present

By:  
Checked:

Date: 11/06/2  
Date: 11/06/2

Curve Number : 61  
Length of Flow : 3269.91 ft  
Average Land Slope : 10.40 %  
Time of Concentration : 0.719 hrs, 43.1 mins

*CN 60.8  
CFS 2.568*

Graphical Peak Discharge

Thu Nov 6 14:09:13 2025

Project: DA-A

By:

Date: 11/06/25

Location:

Checked:

Date:

Present

1. Data:

Drainage area:.....A = 10.1380Acres

Runoff Curve Number:.....CN = ~~61~~60.8

Time of Concentration:.....Tc = 43.10 min

Storm Type:..... = II

Pond and swamp areas spread  
throughout watershed..... = 0.00 percent of A  
0.0000 Acres

2. Frequency.....yr = 10

3. Rainfall, P(24-hour).....in = 3.440

4. Initial abstraction, Ia..... = 1.2787

5. Compute Ia/P..... = 0.3717

6. Unit peak discharge, qu.....csm/in = 304.006

7. Runoff, Q.....in = 0.546

8. Pond & swap adjustment factor, ...Fp = 1.00

9. Peak Discharge, qp.....cfs = ~~2.630~~

2.568

# **Post Construction**

**D.A.-B**

Project: DA-B  
Location:  
Present

By: Date: 11/05/2  
Checked: Date:

1. Runoff Curve Number (CN)

Cover description	CN	Soil Group	Area (Acre)
Woods (Fair)	60	B	1.017
Gravel Streets (including ROW)	85	B	0.062

CN (weighted): 61.4  
Total Area: 1.079 Acre

2. Runoff

Return Period: 10 YEAR  
Rainfall, P: 3.44 in  
Runoff, Q: 0.5640 in  
Runoff Volume: 0.0507 acre-ft  
2209.1 c.ft

Project: DA-B  
Location:  
Present

By: Date: 11/05/2  
Checked: Date: 11/05/2

Curve Number : 61  
Length of Flow : 3000.74 ft  
Average Land Slope : 10.80 %  
Time of Concentration : 0.649 hrs, 38.9 mins

Project: DA-B

By:

Date: 11/05/25

Location:

Checked:

Date:

Present

1. Data:

Drainage area:.....A = 1.0790Acres

Runoff Curve Number:.....CN = 61

Time of Concentration:.....Tc = 38.90 min

Storm Type:..... = II

Pond and swamp areas spread  
throughout watershed..... = 0.00 percent of A  
0.0000 Acres

2. Frequency.....yr = 10

3. Rainfall, P(24-hour).....in = 3.440

4. Initial abstraction, Ia..... = 1.2787

5. Compute Ia/P..... = 0.3717

6. Unit peak discharge, qu.....csm/in = 323.533

7. Runoff, Q.....in = 0.546

8. Pond & swap adjustment factor, ...Fp = 1.00

9. Peak Discharge, qp.....cfs = 0.298

# **Post Construction**

**D.A.-C**

Project: DA-C  
Location:  
Present

By: Date: 11/05/2  
Checked: Date:

1. Runoff Curve Number (CN)

Cover description	CN	Soil Group	Area (Acre)
Woods (Fair)	60	B	0.481
Gravel Streets (including ROW)	85	B	0.056

CN (weighted): 62.6  
Total Area: 0.537 Acre

2. Runoff

Return Period: 10 YEAR  
Rainfall, P: 3.44 in  
Runoff, Q: 0.6135 in  
Runoff Volume: 0.0275 acre-ft  
1196.0 c.ft

Project: DA-C  
Location:  
Present

By: Date: 11/05/2  
Checked: Date: 11/05/2

Curve Number : 63  
Length of Flow : 2730.63 ft  
Average Land Slope : 11.70 %  
Time of Concentration : 0.560 hrs, 33.6 mins

*CN 62.6  
0.39 cfs*

Project: DA-C

By:

Date: 11/05/25

Location:

Checked:

Date:

Present

1. Data:

Drainage area:.....A = 1.0790Acres

Runoff Curve Number:.....CN = ~~63~~ 62.6

Time of Concentration:.....Tc = 33.60 min

Storm Type:..... = II

Pond and swamp areas spread  
throughout watershed..... = 0.00 percent of A  
0.0000 Acres

2. Frequency.....yr = 10

3. Rainfall, P(24-hour).....in = 3.440

4. Initial abstraction, Ia..... = 1.1746

5. Compute Ia/P..... = 0.3415

6. Unit peak discharge, qu.....csm/in = 382.441

7. Runoff, Q.....in = 0.631

8. Pond & swap adjustment factor, ...Fp = 1.00

9. Peak Discharge, qp.....cfs = ~~0.407~~  
0.390

# **Post Construction**

**D.A.-D**

Project: DA-D  
Location:  
Present

By: Date: 11/05/2  
Checked: Date:

1. Runoff Curve Number (CN)

Cover description	CN	Soil Group	Area (Acre)
Woods (Fair)	60	B	8.914
Gravel Streets (including ROW)	85	B	0.273

CN (weighted): 60.7  
Total Area: 9.187 Acre

2. Runoff

Return Period: 10 YEAR  
Rainfall, P: 3.44 in  
Runoff, Q: 0.5356 in  
Runoff Volume: 0.4100 acre-ft  
17860.9 c.ft

Project: DA-D  
Location:  
Present

By: Date: 11/05/2  
Checked: Date: 11/05/2

Curve Number : 61  
Length of Flow : 2102.02 ft  
Average Land Slope : 15.70 %  
Time of Concentration : 0.412 hrs, 24.7 mins

*CW 60.7  
3.197 cfs*

Project: DA-D

By:

Date: 11/05/25

Location:

Checked:

Date:

Present

1. Data:

Drainage area:.....A = 9.1870Acres

Runoff Curve Number:.....CN = ~~61~~ 60.7

Time of Concentration:.....Tc = 24.70 min

Storm Type:..... = II

Pond and swamp areas spread  
throughout watershed..... = 0.00 percent of A  
0.0000 Acres

2. Frequency.....yr = 10

3. Rainfall, P(24-hour).....in = 3.440

4. Initial abstraction, Ia..... = 1.2787

5. Compute Ia/P..... = 0.3717

6. Unit peak discharge, qu.....csm/in = 421.907

7. Runoff, Q.....in = 0.546

8. Pond & swap adjustment factor, ...Fp = 1.00

9. Peak Discharge, qp.....cfs = ~~3.307~~  
3.197

# **Post Construction**

**D.A.-E**

Project: DA-E  
Location:  
Present

By: Date: 11/06/2  
Checked: Date: 11/06/2

Curve Number : 61  
Length of Flow : 1098.89 ft  
Average Land Slope : 16.40 %  
Time of Concentration : 0.237 hrs, 14.2 mins

Runoff Curve Number and Runoff

Thu Nov 6 14:12:10 2025

Project: DA-E  
Location:  
Present

By:  
Checked: Date: 11/06/2  
Date:

1. Runoff Curve Number (CN)

Cover description	CN	Soil Group	Area (Acre)
Gravel Streets (including ROW)	85	B	0.196
Woods (Fair)	60	B	3.993

CN (weighted): 61.2  
Total Area: 4.189 Acre

2. Runoff

Return Period: 10 YEAR  
Rainfall, P: 3.44 in  
Runoff, Q: 0.5530 in  
Runoff Volume: 0.1930 acre-ft  
8409.0 c.ft

Project: DA-E

By:

Date: 11/06/25

Location:

Checked:

Date:

Present

1. Data:

Drainage area:.....A = 4.1890Acres

Runoff Curve Number:.....CN = 61

Time of Concentration:.....Tc = 14.20 min

Storm Type:..... = II

Pond and swamp areas spread  
throughout watershed..... = 0.00 percent of A  
0.0000 Acres

2. Frequency.....yr = 10

3. Rainfall, P(24-hour).....in = 3.440

4. Initial abstraction, Ia..... = 1.2787

5. Compute Ia/P..... = 0.3717

6. Unit peak discharge, qu.....csm/in = 573.141

7. Runoff, Q.....in = 0.546

8. Pond & swap adjustment factor, ...Fp = 1.00

9. Peak Discharge, qp.....cfs = 2.048

# **Post Construction**

**D.A.-F**

Project: DA-F  
Location:  
Present

By:  
Checked: Date: 11/06/2  
Date:

1. Runoff Curve Number (CN)

Cover description	CN	Soil Group	Area (Acre)
Gravel Streets (including ROW)	85	B	0.224
Open Space-Fair (50% to 75% grass)	69	B	1.055

CN (weighted): 71.8  
Total Area: 1.279 Acre

2. Runoff

Return Period: 10 YEAR  
Rainfall, P: 3.44 in  
Runoff, Q: 1.0707 in  
Runoff Volume: 0.1141 acre-ft  
4970.8 c.ft

Project: DA-F  
Location:  
Present

By: Date: 11/06/2  
Checked: Date: 11/06/2

Curve Number : 72  
Length of Flow : 539.12 ft  
Average Land Slope : 2.00 %  
Time of Concentration : 0.290 hrs, 17.4 mins

CN : ~~10~~ 71.8  
CFE : 1.345

Project: DA-F

By:

Date: 11/06/25

Location:

Checked:

Date:

Present

1. Data:

Drainage area:.....A = 1.2790Acres

Runoff Curve Number:.....CN = ~~72~~ 71.8

Time of Concentration:.....Tc = 17.40 min

Storm Type:..... = II

Pond and swamp areas spread throughout watershed..... = 0.00 percent of A  
0.0000 Acres

2. Frequency.....yr = 10

3. Rainfall, P(24-hour).....in = 3.440

4. Initial abstraction, Ia..... = 0.7778

5. Compute Ia/P..... = 0.2261

6. Unit peak discharge, qu.....csm/in = 629.740

7. Runoff, Q.....in = 1.082

8. Pond & swap adjustment factor, ...Fp = 1.00

9. Peak Discharge, qp.....cfs = ~~1.362~~

1.345

# **D.A.-B Pipe Calculations**

Project: DA-B PIPE

By:

Date: 11/05/25

Location:

Checked:

Date:

Present

1. Data:

Drainage area:.....A = 1.0790Acres

Runoff Curve Number:.....CN = 61

Time of Concentration:.....Tc = 6.00 min

Storm Type:..... = II

Pond and swamp areas spread  
throughout watershed..... = 0.00 percent of A  
0.0000 Acres

2. Frequency.....yr = 10

3. Rainfall,P(24-hour).....in = 3.440

4. Initial abstraction, Ia..... = 1.2787

5. Compute Ia/P..... = 0.3717

6. Unit peak discharge, qu.....csm/in = 856.576

7. Runoff,Q.....in = 0.546

8. Pond & swap adjustment factor,...Fp = 1.00

9. Peak Discharge,qp.....cfs = 0.789

Time of Concentration (SCS)

Wed Nov 5 11:13:05 2025

Project: DA-B PIPE  
Location:  
Present

By:  
Checked:

Date: 11/05/2  
Date: 11/05/2

Curve Number : 61  
Length of Flow : 445.28 ft  
Average Land Slope : 21.60 %  
Time of Concentration : 0.100 hrs, 6.0 mins

Design Parameters

Section

Shape:	Circular
Material:	HDPE
Diameter:	8.00 in
Manning's n:	0.0120
Number of Barrels:	1

Inlet

Inlet Type:	Groove End Projecting
Ke:	0.20

Inverts

Inlet Invert Elevation:	2629.017	ft
Outlet Invert Elevation:	2627.800	ft
Length:	20.561	ft
Slope:	5.92	%

Culvert Calculation

Discharge:	0.79	cfs
Headwater Elevation:	2629.654	ft
Tailwater Elevation:	0.000	ft
Downstream Velocity:	7.56	ft/s
Downstream Flow Depth:	0.226	ft
Critical Flow Depth:	0.421	ft
Normal Flow Depth:	0.226	ft
Flow Control Type:	Outlet Control, Gradually Varied Flow	

# **D.A.-C Pipe Calculations**

Project: DA-C PIPE  
Location:  
Present

By: Date: 11/05/2  
Checked: Date: 11/05/2

Curve Number : 63  
Length of Flow : 500.59 ft  
Average Land Slope : 29.10 %  
Time of Concentration : 0.091 hrs, 5.5 mins

*cn 62.6  
0.464 cfs*

Project: DA-C PIPE

By:

Date: 11/05/25

Location:

Checked:

Date:

Present

1. Data:

Drainage area:.....A = 0.5370Acres

Runoff Curve Number:.....CN = ~~63~~ 62.6

Time of Concentration:.....Tc = 5.40 min

Storm Type:..... = II

Pond and swamp areas spread  
throughout watershed..... = 0.00 percent of A  
0.0000 Acres

2. Frequency.....yr = 10

3. Rainfall, P(24-hour).....in = 3.440

4. Initial abstraction, Ia..... = 1.1746

5. Compute Ia/P..... = 0.3415

6. Unit peak discharge, qu.....csm/in = 908.546

7. Runoff, Q.....in = 0.631

8. Pond & swap adjustment factor, ...Fp = 1.00

9. Peak Discharge, qp.....cfs = ~~0.481~~  
0.464

## Design Parameters

## Section

Shape:	Circular
Material:	HDPE
Diameter:	8.00 in
Manning's n:	0.0120
Number of Barrels:	1

## Inlet

Inlet Type:	Groove End Projecting
Ke:	0.20

## Inverts

Inlet Invert Elevation:	2584.192	ft
Outlet Invert Elevation:	2581.781	ft
Length:	20.929	ft
Slope:	11.52	%

## Culvert Calculation

Discharge:	0.46	cfs
Headwater Elevation:	2584.659	ft
Tailwater Elevation:	0.000	ft
Downstream Velocity:	8.24	ft/s
Downstream Flow Depth:	0.146	ft
Critical Flow Depth:	0.318	ft
Normal Flow Depth:	0.146	ft
Flow Control Type:	Outlet Control, Gradually Varied Flow	

# **D.A.-D Pipe Calculations**

Project: DA-D PIPE  
Location: Present

By:   
Checked:   
Date: 11/05/2  
Date:

1. Runoff Curve Number (CN)

Cover description	CN	Soil Group	Area (Acre)
Woods (Fair)	60	B	8.914
Gravel Streets (including ROW)	85	B	0.273

CN (weighted): 60.7  
Total Area: 9.187 Acre

2. Runoff

Return Period: 10 YEAR  
Rainfall, P: 3.44 in  
Runoff, Q: 0.5356 in  
Runoff Volume: 0.4100 acre-ft  
17860.9 c.ft

cn 61.7 = 5.263 cfs

Time of Concentration (SCS)

Wed Nov 5 10:20:59 2025

Project: DA-D PIPE  
Location:  
Present

By: Date: 11/05/2  
Checked: Date: 11/05/2

Curve Number : 61  
Length of Flow : 1119.05 ft  
Average Land Slope : 24.80 %  
Time of Concentration : 0.198 hrs, 11.9 mins

Project: DA-D PIPE

By:

Date: 11/05/25

Location:

Checked:

Date:

Present

1. Data:

Drainage area:.....A = 9.1870Acres

Runoff Curve Number:.....CN = ~~62~~ 61.7

Time of Concentration:.....Tc = 11.90 min

Storm Type:..... = II

Pond and swamp areas spread  
throughout watershed..... = 0.00 percent of A  
0.0000 Acres

2. Frequency.....yr = 10

3. Rainfall, P(24-hour).....in = 3.440

4. Initial abstraction, Ia..... = 1.2258

5. Compute Ia/P..... = 0.3563

6. Unit peak discharge, qu.....csm/in = 644.098

7. Runoff, Q.....in = 0.588

8. Pond & swap adjustment factor, ...Fp = 1.00

9. Peak Discharge, qp.....cfs = ~~5.433~~  
5.263

*with existing pipe*

## Design Parameters

## Section

Shape:	Circular
Material:	HDPE
Diameter:	12.00 in
Manning's n:	0.0120
Number of Barrels:	1

## Inlet

Inlet Type:	Groove End Projecting
Ke:	0.20

## Inverts

Inlet Invert Elevation:	2452.982	ft
Outlet Invert Elevation:	2451.076	ft
Length:	25.246	ft
Slope:	7.55	%

## Culvert Calculation

Discharge:	5.26	cfs
Headwater Elevation:	2455.056	ft
Tailwater Elevation:	0.000	ft
Downstream Velocity:	11.94	ft/s
Downstream Flow Depth:	0.548	ft
Critical Flow Depth:	0.929	ft
Normal Flow Depth:	0.498	ft
Flow Control Type:	Inlet Control, Submerged	

*Design*

Design Parameters

Section

Shape:	Circular
Material:	HDPE
Diameter:	18.00 in
Manning's n:	0.0120
Number of Barrels:	1

Inlet

Inlet Type:	Groove End Projecting
Ke:	0.20

Inverts

Inlet Invert Elevation:	2452.982	ft
Outlet Invert Elevation:	2451.076	ft
Length:	25.246	ft
Slope:	7.55	%

Culvert Calculation

Discharge:	5.26	cfs
Headwater Elevation:	2454.306	ft
Tailwater Elevation:	0.000	ft
Downstream Velocity:	13.14	ft/s
Downstream Flow Depth:	0.417	ft
Critical Flow Depth:	0.884	ft
Normal Flow Depth:	0.417	ft
Flow Control Type:	Outlet Control, Gradually Varied Flow	

# Minimum Standards

The following minimum standards will be adhered to where applicable.

## Erosion and Sediment Control Minimum Standards

The following *Minimum Standards* will be met in accordance with the Virginia Erosion and Sediment Control Handbook:

MS-1: Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied within seven days to denuded areas that may not be at final grade but will remain dormant for longer than 30 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.

MS-2: During construction of the project, soil stockpiles and borrow areas shall be stabilized or protected with sediment trapping measures. The applicant is responsible for the temporary protection and permanent stabilization of all soil stockpiles on site as well as borrows areas and soil intentionally transported from the project site.

MS-3: A permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation shall not be considered established until a ground cover is achieved that is uniform, mature enough to survive and will inhibit erosion.

MS-4: Sediment trapping facilities shall be constructed as a first step in any land-disturbing activity and shall be made functional before upslope land disturbance takes place. **Silt fence to be installed around actively disturbed cabin site area.**

MS-5: Stabilization measures shall be applied to earthen structures such as dams, dikes and diversions immediately after installation. **N/A**

MS-6: Sediment traps and sediment basins shall be designed and constructed based upon the total drainage area to be served by the trap or basin. Calculations and detailed drawings should be included in the plan. **N/A**

MS-7: Cut and fill slopes shall be designed and constructed in a manner that will minimize erosion. Slopes that are found to be eroding excessively within one year of permanent stabilization shall be provided with additional slope stabilizing measures until the problem is corrected.

MS-8: Concentrated runoff shall not flow down cut or fill slopes unless contained within an adequate temporary or permanent channel, flume or slope drain structure.

MS-9: Whenever water seeps from a slope face, adequate drainage or other protection shall be provided

MS-10: All storm sewer inlets that are made operable during construction shall be protected so that sediment-laden water cannot enter the conveyance system without first being filtered or otherwise treated to remove sediment. **N/A**

MS-11: Before newly constructed stormwater conveyance channels or pipes are made operational, adequate outlet protection and any required temporary or permanent channel lining shall be installed in both the conveyance channel and receiving channel. **N/A**

MS-12: When work in a live watercourse is performed, precautions shall be taken to minimize encroachment, control sediment transport, and stabilize the work area to the greatest extent possible during construction. **N/A**

MS-13: Non-erodible material shall be used for the construction of causeways and cofferdams. Earthen fill may be used for these structures if armored by non-erodible cover materials. When a live watercourse must be crossed by construction vehicles more than twice in any six-month period, a temporary vehicular stream crossing constructed of non-erodible material shall be provided. **N/A**

MS-14: All applicable federal, state and local regulations pertaining to working in or crossing live watercourses shall be met.

MS-15: The bed and banks of a watercourse shall be stabilized immediately after work in the watercourse is completed. **N/A**

MS-16: Underground utility lines shall be installed in accordance with the following standards in addition to other applicable criteria:

- a. No more than 500 linear feet of trench may be opened at one time.
- b. Excavated material shall be placed on the uphill side of trenches.
- c. Effluent from dewatering operations shall be filtered or passed through approved sediment trapping device, or both, and discharged in a manner that does not adversely affect flowing streams or off-site property.
- d. Material used for backfilling trenches shall be properly compacted in order to minimize erosion and promote stabilization.
- e. Restabilization shall be accomplished in accordance with these regulations.
- f. Applicable safety regulations shall be complied with.

MS-17: Where construction vehicle access routes intersect paved or public roads, provisions shall be made to minimize the transport of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a paved or public road surface, the road surface shall be cleaned thoroughly at the end of each day. Sediment shall be removed from the roads by shoveling or sweeping and transported to a sediment control disposal area. Street washing shall be allowed only after sediment is removed in this manner. This provision shall apply to individual development lots as well as to larger land-disturbing activities. **N/A**

MS-18: All temporary erosion and sediment control measures shall be removed within 30 days after final site stabilization or after the temporary measures are no longer needed, unless otherwise authorized by the local program authority. Trapped sediment and the disturbed soil areas resulting from the disposition of temporary measures shall be permanently stabilized to prevent further erosion and sedimentation.

MS-19: Properties and waterways downstream from development sites shall be protected from sediment deposition, erosion and damage due to increases in volume, velocity and peak flow rate of stormwater runoff for the stated frequency storm of 24-hour duration in accordance with VA ESC standards and specs. **Drainage area analysis for total drainage area to the point of analysis shows 2,628.4 acres of drainage area. Contributing drainage area of the project is 26.409 acres. This results in a total drainage area of 100 times greater than the project drainage area.**