

# TYPE II APPLICATION – LAND USE

RECEIVED

File #: PAR21-0002

NOV 24 2021

Initial: \_\_\_\_\_

**TYPES – PLEASE CHECK ONE:**

- Design review
- Tentative Plan for Partition
- Tentative Plan for Subdivision
- Type II Major Modification
- Variance
- Other: (Explain) \_\_\_\_\_

**APPLICANT INFORMATION:**

APPLICANT: Zone Holdings (Casey Bernard)  
 ADDRESS: 375 SW VIEWMONT DRIVE, DUNDEE, OR 97115  
 EMAIL ADDRESS: caseysbernard@yahoo.com  
 PHONE: (503) 997-1608 MOBILE: \_\_\_\_\_ FAX: \_\_\_\_\_  
 OWNER (if different from above): \_\_\_\_\_ PHONE: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 ENGINEER/SURVEYOR: HBH Consulting Engineers, Inc. (Andrey Chernishov) PHONE: 503-554-9553  
 ADDRESS: 501 E First Street, Newberg, OR 97132

**GENERAL INFORMATION:**

PROJECT NAME: 601 Blaine Street Partition PROJECT LOCATION: 601 S Blaine Street  
 PROJECT DESCRIPTION/USE: Residential PROJECT VALUATION: \_\_\_\_\_  
 MAP/TAX LOT NO. (i.e. 3200AB-400): 3219AC-4100 ZONE: R-3 SITE SIZE: 56,082 SQ. FT.  ACRE   
 COMP PLAN DESIGNATION: R-3 TOPOGRAPHY: Mostly flat with steep slopes on the west side  
 CURRENT USE: Residential  
 SURROUNDING USES:  
 NORTH: R-1/R-3 Single Family SOUTH: R-3 Multi-family  
 EAST: R-3 Single Family WEST: R-1 Single Family

**SPECIFIC PROJECT CRITERIA AND REQUIREMENTS ARE ATTACHED**

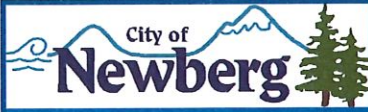
General Checklist:  Fees  Public Notice Information  Current Title Report  Written Criteria Response  Owner Signature

For detailed checklists, applicable criteria for the written criteria response, and number of copies per application type, turn to:

- Design Review .....p. 12
- Partition Tentative Plat .....p. 14
- Subdivision Tentative Plat .....p. 17
- Variance Checklist .....p. 20

The above statements and information herein contained are in all respects true, complete, and correct to the best of my knowledge and belief. Tentative plans must substantially conform to all standards, regulations, and procedures officially adopted by the City of Newberg. All owners must sign the application or submit letters of consent. Incomplete or missing information may delay the approval process.

[Signature] NOV 23 21      [Signature] NOV 23 21  
 Applicant Signature      Date      Owner Signature      Date  
Lacey Bernard           Lacey Bernard  
 Print Name           Print Name



**Cash Register Receipt**  
City of Newberg

**Receipt Number**  
**R10599**

DESCRIPTION	ACCOUNT	QTY	PAID
<b>ProjectTRAK</b>			<b>\$1,210.00</b>
<b>PAR21-0002 Address: 601 S BLAINE ST APN: R3219AC 04100</b>			<b>\$1,210.00</b>
<b>TECHNOLOGY FEE</b>			<b>\$57.00</b>
TECHNOLOGY FEE	01-0000-341006	0	\$57.00
<b>TYPE II</b>			<b>\$1,153.00</b>
PARTITION PRELIMINARY PLAT	01-0000-341003	3	\$1,153.00
<b>TOTAL FEES PAID BY RECEIPT: R10599</b>			<b>\$1,210.00</b>

Date Paid: Wednesday, November 24, 2021

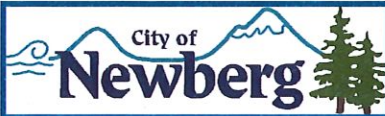
Paid By: ZONE HOLDINGS LLC

Cashier: MF

Pay Method: CHECK 5028







**Cash Register Receipt**  
City of Newberg

**Receipt Number**  
**R10609**

DESCRIPTION	ACCOUNT	QTY	PAID
<b>ProjectTRAK</b>			<b>\$312.20</b>
<b>PAR21-0002</b>	<b>Address: 601 S BLAINE ST</b>	<b>APN: R3219AC 04100</b>	<b>\$312.20</b>
<b>ADDITIONAL ENGINEERING DEPT LAND USE REVIEW FEES</b>			<b>\$296.71</b>
SUBDIVISION, PARTITION & PUD REVIEW	36-8675-3090001	3	\$296.71
<b>TECHNOLOGY FEE</b>			<b>\$15.49</b>
TECHNOLOGY FEE	01-0000-341006	0	\$15.49
<b>TOTAL FEES PAID BY RECEIPT: R10609</b>			<b>\$312.20</b>

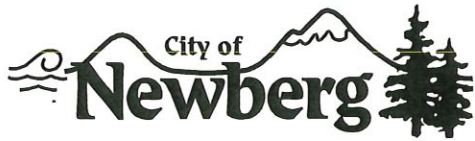
Date Paid: Tuesday, November 30, 2021

Paid By: ZONE HOLDINGS LLC

Cashier: BMGN

Pay Method: OTC CARD 263-01





# Community Development Department

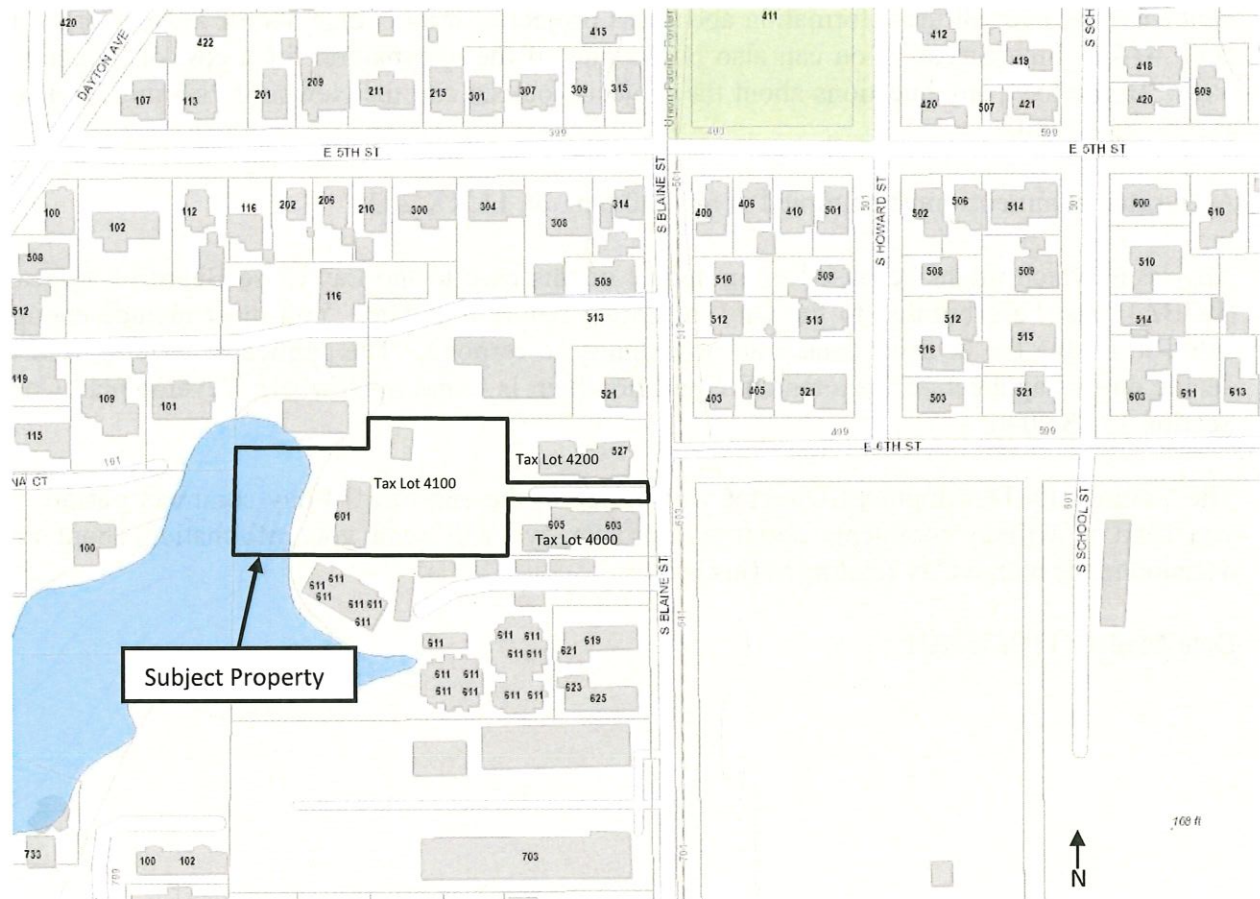
P.O. Box 970 • 414 E First Street • Newberg, Oregon 97132

503-537-1240. Fax 503-537-1272 [www.newbergoregon.gov](http://www.newbergoregon.gov)

## WE WANT YOUR COMMENTS ON A PROPOSED NEW DEVELOPMENT IN YOUR NEIGHBORHOOD

A property owner in your neighborhood applied to the City of Newberg to divide one lot into three parcels. The lot sizes will be 37,780 SF, 9,491 SF, and 8,811 SF. Access for the lots will come from S Blaine Street via a new 25' wide driveway that will replace and merge the existing driveway accesses to tax lots 4000 and 4200. The existing home on the existing property will remain as-is. The two lots created directly west of tax lots 4000 and 4200 will become duplexes or single-family homes.

You are invited to take part in the City's review of this project by sending in your written comments. You may also request that the Planning Commission hold a hearing on the application. The applicable criteria used to decide on this application for preliminary partition plan approval are found in Newberg Development Code 15.235.050(A). For more details about giving comments, please see the back of this sheet.





APPLICANT: Zone Holdings  
TELEPHONE: (503) 977-1608

PROPERTY OWNER: Casey & Shannon Bernard

LOCATION: 601 S Blaine Street

TAX LOT NUMBER: 3219AC-4100

We are mailing you information about this project because you own land within 500 feet of the proposed new lots. We invite you to send any written comments for or against the proposal within 14 days from the date this notice is mailed.

If you mail your comments to the City, please put the following information on the outside of the envelope:

Written Comments: File No.XX  
City of Newberg  
Community Development Department  
PO Box 970  
Newberg, OR 97132

You can look over all the information about this project or drop comments off at Newberg City Hall, 414 E. First Street. You can also buy copies of the information for a cost of 25 cents a page. If you have any questions about the project, you can call the Newberg Planning Division at 503- 537-1240.

All written comments must be turned in by 4:30 p.m. on 11/XX/2021.

Any issue which might be raised in an appeal of this case to the Land Use Board of Appeals (LUBA) must be submitted to the City in writing before this date. You must include enough detail to enable the decision maker an opportunity to respond. The applicable criteria used to decide on this application for a tentative partition plan is found in Newberg Development Code Section 15.235.040.

The Community Development Director will decide at the end of a 14-day comment period. If you send in written comments about this project, we will send you information about any decision made by the City relating to this project.

Date Mailed: 11/XX/2021

# Land Use Notice

**FILE #** xx-xx

**PROPOSAL:** Divide one lot into three parcels

**FOR FURTHER INFORMATION, CONTACT**

City of Newberg  
Community Development Department  
414 E First Street  
Phone: 503-537-1240

2'

3'





*First American*

Date of Production: 11/17/2021

## **TERMS AND CONDITIONS OF INFORMATION REPORTS**

**IMPORTANT - READ CAREFULLY:** AN INFORMATION REPORT IS NOT AN INSURED PRODUCT OR SERVICE OR A REPRESENTATION OF THE CONDITION OF TITLE TO REAL PROPERTY. IT IS NOT AN ABSTRACT, LEGAL OPINION, OPINION OF TITLE, TITLE INSURANCE COMMITMENT OR PRELIMINARY REPORT, OR ANY FORM OF TITLE INSURANCE OR GUARANTY. THE INFORMATION REPORT IS ISSUED EXCLUSIVELY FOR THE BENEFIT OF THE REQUESTOR, AND MAY NOT BE USED OR RELIED UPON BY ANY OTHER PERSON. THE INFORMATION REPORT MAY NOT BE REPRODUCED IN ANY MANNER WITHOUT FIRST AMERICAN TITLE'S PRIOR WRITTEN CONSENT. FIRST AMERICAN TITLE DOES NOT REPRESENT OR WARRANT THAT THE INFORMATION CONTAINED IN THE INFORMATION REPORT IS COMPLETE OR FREE FROM ERROR, AND THE INFORMATION THEREIN IS PROVIDED WITHOUT ANY WARRANTIES OF ANY KIND, AS-IS, AND WITH ALL FAULTS. AS A MATERIAL PART OF THE CONSIDERATION GIVEN IN EXCHANGE FOR THE ISSUANCE OF AN INFORMATION REPORT, REQUESTOR AGREES THAT FIRST AMERICAN TITLE'S SOLE LIABILITY FOR ANY LOSS OR DAMAGE CAUSED BY AN ERROR OR OMISSION DUE TO INACCURATE INFORMATION OR NEGLIGENCE IN PREPARING THE INFORMATION REPORT SHALL BE LIMITED TO THE GREATOR OF THE FEE CHARGED FOR THE INFORMATION REPORT OR \$15. REQUESTOR ACCEPTS THE INFORMATION REPORT WITH THIS LIMITATION AND AGREES THAT FIRST AMERICAN TITLE WOULD NOT HAVE ISSUED THE INFORMATION REPORT BUT FOR THE LIMITATION OF LIABILITY DESCRIBED ABOVE. FIRST AMERICAN TITLE MAKES NO REPRESENTATION OR WARRANTY AS TO THE LEGALITY OR PROPRIETY OF REQUESTOR'S USE OF THE INFORMATION CONTAINED IN THE INFORMATION REPORT.

R3219AD 13200  
Soren Christensen  
510 S Blaine St  
Newberg, OR 97132

R3219AD 12500  
Justin Wikler & Rachel Neville  
410 E 5th St  
Newberg, OR 97132

R3219AD 13300  
Roger Liebenow  
406 E 5th St  
Newberg, OR 97132

R3219AD 11600  
Cadd Helen R Surviving Cadd Living Trust  
909 E Fulton St  
Newberg, OR 97132

R3219AC 04700  
Kevin Wessels  
304 E 5th St  
Newberg, OR 97132

R3219AC 05202  
Hans Jensen  
22330 NE Highway 240  
Newberg, OR 97132

R3219AD 12600  
Autumn Haile  
509 S Howard St  
Newberg, OR 97132

R3219AD 12700  
Gwendolyn Gilbertson  
513 S Howard St  
Newberg, OR 97132

R3219AD 11500  
Anthony & Wendy Vece  
105 SW Spruce St  
Dundee, OR 97115

R3219AD 11400  
Dorothy Tarpley  
512 S Howard St  
Newberg, OR 97132

R3219AD 11300  
Johanna Creech  
17950 NW Brickstone Ln  
Beaverton, OR 97006

R3219AC 04600  
Robert & Mary Mcbee  
308 E 5th St  
Newberg, OR 97132

R3219AC 05905  
Theodore & Paige Reuter  
124 W Johanna Ct  
Newberg, OR 97132

R3219AC 05913  
Theodore & Paige Reuter  
124 W Johanna Ct  
Newberg, OR 97132

R3219AC 04000  
Larry Cox  
603 S Blaine St  
Newberg, OR 97132

R3219AC 04400  
Bruno Precciozzi & Arianne Reagor  
509 S Blaine St  
Newberg, OR 97132

R3219AD 13400  
Sarah & Jason Harris  
5136 SE 37th Ave  
Portland, OR 97202

R3219AD 11700  
Talia Bollard  
506 E 5th St  
Newberg, OR 97132

R3219AC 02500  
Brad Holbrook & Fangyi Liao-Holbrook  
301 E 5th St  
Newberg, OR 97132

R3219AC 05600  
Friends Of Chehalem House  
Po Box 548  
Newberg, OR 97132

R3219AC 05904  
Timothy Schneider  
101 W Johanna Ct  
Newberg, OR 97132

R3219AC 05908  
Robert & Lillian Ralstin  
140 W Johanna Ct  
Newberg, OR 97132

R3219DB 04602  
Kennedy Reese C & Ruth U Kennedy  
618 S Dayton Ave  
Newberg, OR 97132

R3219AC 05912  
Rea Andrew  
100 W Johanna Ct  
Newberg, OR 97132

R3219AC 05910  
Theodore & Paige Reuter  
124 W Johanna Ct  
Newberg, OR 97132

R3219AC 06600  
Troy & Jennifer Rossetti  
515 S Dayton Ave  
Newberg, OR 97132

R3219AC 04301  
Schmidt Charles M & Fonda R (Trustees)  
514 S Dayton Ave  
Newberg, OR 97132

R3219AC 06800  
Glen & Charlie Johnson  
505 S Dayton Ave  
Newberg, OR 97132

R3219AC 04100  
Zone Holdings Llc  
601 S Blaine St  
Newberg, OR 97132

R3219DB 00100  
Li Ren Equity Llc  
13025 SW Allen Blvd  
Beaverton, OR 97005



R3219DB 04204  
Ronnie & Ruth Palmer  
704 S Garfield St  
Newberg, OR 97132

R3219DB 00500  
David & Jonni Maben  
309 E 8th St  
Newberg, OR 97132

R3219DB 00670  
Timothy & Laurel Mueller  
Po Box 157  
Carlton, OR 97111

R3219DB 00300  
School District No 29  
535 NE 5th St  
Mcminnville, OR 97128

R3219AC 04900  
Pamela Collier  
210 E 5th St  
Newberg, OR 97132

R3219AC 02700  
Matthew Greensmith & Maggie  
6002 SE Reedway St  
Portland, OR 97206

R3219AC 05903  
James & Heather Birchill  
109 W Johanna Ct  
Newberg, OR 97132

R3219AD 13000  
Christopher Nielsen  
403 E 6th St  
Newberg, OR 97132

R3219DB 04201  
Delmar & Darlene Washburn  
10820 NE Stevenson Rd  
Newberg, OR 97132

R3219DB 00200  
Seronello Lee R & Ann J Seronello Lee R  
14 Ridgetop Way  
Napa, CA 94558

R3219DA 04200  
School District No 29  
535 NE 5th St  
Mcminnville, OR 97128

R3219DA 04300  
School District No 6  
535 NE 5th St  
Mcminnville, OR 97128

R3219AC 05702  
Schmidt Charles M & Fonda R (Trustees)  
514 S Dayton Ave  
Newberg, OR 97132

R3219AC 05700  
Shannon Morales & Ryan Johnson  
508 S Dayton Ave  
Newberg, OR 97132

R3219AC 06000  
Timothy Thielen  
606 S Dayton Ave  
Newberg, OR 97132

R3219AC 06100  
Andrea & Christopher Mooney  
610 S Dayton Ave  
Newberg, OR 97132

R3219AC 02800  
Robert Brownell & Nancy Bradetich  
309 E 5th St  
Newberg, OR 97132

R3219DB 00690  
Jose Baca  
201 E 7th St  
Newberg, OR 97132

R3219AC 05100  
Mark Bartlett  
202 E 5th St  
Newberg, OR 97132

R3219AC 06700  
Calum Hill & Dallas Malone  
511 S Dayton Ave  
Newberg, OR 97132

R3219AC 05901  
Lilia Andrade  
119 W Johanna Ct  
Newberg, OR 97132

R3219DB 04203  
David & Lisa Hirschfelt  
225 NW Brier Ave  
Dundee, OR 97115

R3219AC 05902  
Stewart & Laura Weed  
115 W Johanna Ct  
Newberg, OR 97132

R3219AC 05907  
Monica Chapman  
130 W Johanna Ct  
Newberg, OR 97132

R3219DB 04691  
David & Debby Thomas  
733 S Garfield St  
Newberg, OR 97132

R3219AD 11201  
Delmer & Nicola Munroe  
521 S School St  
Newberg, OR 97132

R3219AD 11200  
Delmer & Nicola Munroe  
521 S School St  
Newberg, OR 97132

R3219AD 11000  
Candace Peterson  
509 S School St  
Newberg, OR 97132

R3219DB 00600  
Jose Baca  
2618 NW Hayes Rd  
Woodland, WA 98674

R3219AC 06900  
Jeff Schiedler  
110 W 5th St  
Newberg, OR 97132

R3219DB 04690  
Holden New Berg Qozb Llc  
5652 SW Northwood Ave  
Portland, OR 97239

R3219AC 04500  
Melissa Willey  
314 E 5th St  
Newberg, OR 97132

R3219AC 02801  
Cole Austin & Katie Hubbard  
10241 SW Evergreen Ct  
Wilsonville, OR 97070

R3219DB 00680  
Timothy & Laurel Mueller  
Po Box 157  
Carlton, OR 97111

R3219AC 04800  
Greg Deutelbaum & Vanesa Orourke  
300 E 5th St  
Newberg, OR 97132

R3219AD 12900  
Christopher & Yolanda Jones  
405 E 6th St  
Newberg, OR 97132

R3219AD 13100  
Nathaniel Zahm & Jessica Matchett  
512 S Blaine St  
Newberg, OR 97132

R3219DB 04500  
Thomas Birmingham Iii  
117 W 8th St  
Newberg, OR 97132

R3219AC 05900  
Michael & Chennel Evans  
131 W Johanna Ct  
Newberg, OR 97132

R3219AC 05701  
Jimmy & Kathie Morton  
25153 NE Butteville Rd  
Aurora, OR 97002

R3219AC 05909  
Timothy & Laurel Mueller  
Po Box 157  
Carlton, OR 97111

R3219AC 06503  
Rebecca Simpson & William Donovan  
531 S Dayton Ave  
Newberg, OR 97132

R3219DB 04200  
Deborah Roberts  
702 S Garfield St  
Newberg, OR 97132

R3219AC 05000  
Kerrie Allen  
206 E 5th St  
Newberg, OR 97132

R3219AC 02400  
Engle Llc  
211 E 5th St  
Newberg, OR 97132

R3219DB 04605  
Daniel Allenby & Heather Moriarty  
614 S Dayton Ave  
Newberg, OR 97132

R3219AC 08300  
Keith & Evelyn Barnes  
429 S Main St  
Newberg, OR 97132

R3219AC 05201  
Schmidt Charles M & Fonda R (Trustees  
514 S Dayton Ave  
Newberg, OR 97132

R3219AD 12300  
Newberg City Of  
535 NE 5th St  
Mcminnville, OR 97128

R3219AD 12400  
James & Gail Bonsey  
501 S Howard St  
Newberg, OR 97132

R3219AC 02600  
Sergiy Barsukov  
307 E 5th St  
Newberg, OR 97132

R3219AC 05300  
Joslyn & Keith Keating  
116 E 5th St  
Newberg, OR 97132

R3219AC 02401  
Richard & Jessica Hughes  
209 E 5th St  
Newberg, OR 97132

R3219AC 04300  
Patricia Doxtater  
521 S Blaine St  
Newberg, OR 97132

R3219DB 00400  
Rigoberto & Lucia Garcia  
705 S Blaine St  
Newberg, OR 97132

R3219AD 11100  
Daniel & Sarah Taylor  
515 S School St  
Newberg, OR 97132

R3219AC 05911  
Harry Banister & Jennifer Dittmer  
128 W Johanna Ct  
Newberg, OR 97132

R3219AC 05906  
Paul & Emily Bachand  
120 W Johanna Ct  
Newberg, OR 97132

R3219AC 02501  
Vivian Archibald  
215 E 5th St  
Newberg, OR 97132

R3219AC 05500  
Kenneth & Rhonda Marron  
102 E 5th St  
Newberg, OR 97132

R3219AC 05801

Hans Jensen  
22330 NE Highway 240  
Newberg, OR 97132

R3219AC 04200

Danny & Jo Russell  
527 S Blaine St  
Newberg, OR 97132

R3219AD 12800

Jerry & Linda Havener  
521 S Howard St  
Newberg, OR 97132

R3219AC 05400

Schmidt Charles M & Fonda R Schmidt  
112 E 5th St  
Newberg, OR 97132

R3219AC 02300

Norven Hilger  
201 E 5th St  
Newberg, OR 97132

R3219AC 02100

Ronda Arbogast & Frank Measel  
107 E 5th St  
Newberg, OR 97132

R3219AC 02203

SIGMUND HOLDINGS LLC  
Po Box 3189  
Newberg, OR 97132

R3219AC 02202

BLACK SHEEP CONSTRUCTION LLC  
16340 Ne Yamhill Rd  
Yamhill, OR 97148

R3219AC 02200

Frank Measel & Ronda Arbogast  
107 E 5th St  
Newberg, OR 97132

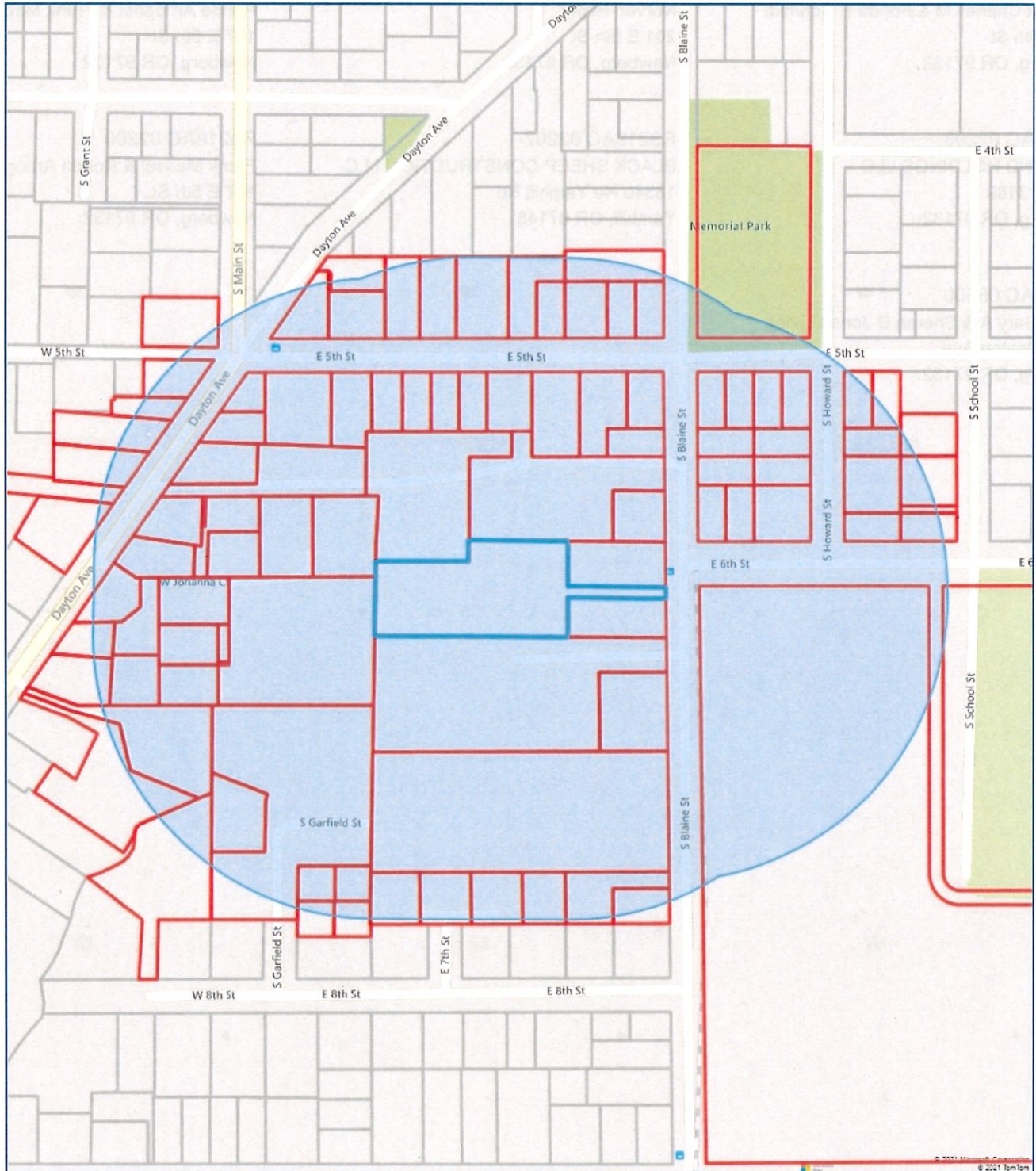
R3219AC 06500

Jones Gary A & Sheran D Jones Living  
521 S Dayton Ave  
Newberg, OR 97132



# 500 ft Buffer

601 S Blaine St, Newberg, OR 97132  
Report Generated: 11/17/2021



The present data and maps are intended for informational purposes only. Some information has been procured from third-party sources and has not been independently verified. Individual parts are owned by their respective copyright owners and not by First American. First American Title Company makes no express or implied warranty respecting the information presented and assumes no responsibility for errors or omissions.





**First American Title™**

Customer Service Department

Phone: 503.219.8746(TRIO)

Email: cs.oregon@firstam.com

Report Generated: 11/17/2021

## Ownership

Legal Owner(s): Zone Holdings Llc

Site Address: 601 S Blaine St Newberg, OR 97132

Mailing Address: 601 S Blaine St Newberg, OR 97132

Parcel #: R3219AC 04100

APN: 50358

County: Yamhill

## Property Characteristics

Bedrooms: 3

Total Bathrooms: 2

Full Bathrooms: 2

Half Bathrooms: 0

Units: 0

Stories: 1.00

Fire Place: Y

Air Conditioning:

Heating Type: Baseboard

Electric Type:

Year Built: 1968

Building SqFt: 1581

First Floor SqFt: 1581

Basement Sqft: 0

Basment Type:

Lot SqFt: 54450

Lot Acres: 1.25

Roof Type: Composition

Roof Shape: GABLE

Porch Type:

Building Style:

Garage: Attached Garage

Garage SqFt: 441

Parking Spots: 2

Pool:

## Property Information

Land Use: RESIDENTIAL

Improvement Type: Single Family Residential

Legal Description: SEE METES & BOUNDS

Zoning: R-3

School District: Newberg School

Neighborhood:

Subdivision:

## Assessor & Tax

Market Land: \$434,584

Market Total: \$584,468

Market Structure: \$149,884

Assessed Total: \$254,206

Taxes: \$3,765.58

% Improved: 26

Levy Code:

Millage Rate:

## Sale History

Last Sale Date: 11/14/2019

Prior Sale Date:

Doc #: 201916593

Prior Doc #:

Last Sale Price: \$327,500

Prior Sale Price: \$0

## Mortgage

1st Mortgage Date: 11/14/2019

1st Mortgage Type:

2nd Mortgage Type:

Doc #: 201916594

1st Mortgage Lender: Veristone Mortgage Llc

1st Mortgage: \$0

2nd Mortgage: \$0

First American Title Insurance Company makes no express or implied warranty respecting the information presented and assumes no responsibility for errors or omissions. FIRST AMERICAN, the Eagle logo, and FIRST AMERICAN TITLE INSURANCE COMPANY are trademarks owned by First American Financial Corporation. Information is provided by Home Junction.

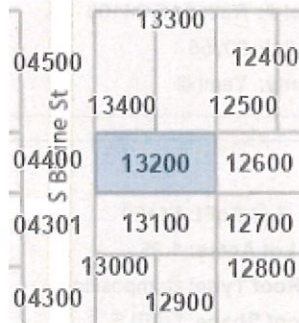
<https://www.homejunction.com/> School information is copyrighted and provided by GreatSchools.org. <https://www.greatschools.org>





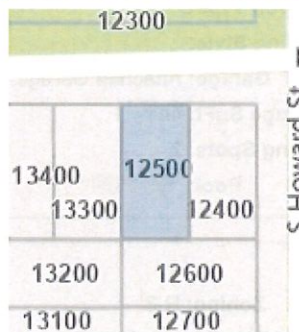
**First American Title™**

Customer Service Department  
 Phone: 503.219.8746(TRIO)  
 Email: cs.oregon@firstam.com  
 Report Generated: 11/17/2021



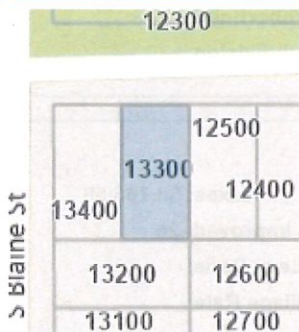
**Legal Owner:** Soren Christensen  
**Site Address:** 510 S Blaine St Newberg, OR 97132  
**Mailing Address:** 510 S Blaine St Newberg, OR 97132  
**Bedrooms:** 2  
**Bathrooms:** 1  
**Building SqFt:** 866                      **Lot Acres:** 0.12  
**Year Built:** 1965  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR D TAXLOT 13200

**APN:** 50330  
**Ref Parcel #:** R3219AD 13200  
**Taxes:** \$1,921.32  
**Market Value:** \$256,396  
**Assessed Value:** \$129,704  
**Sales Price:** \$169,500  
**Transfer Date:** 3/18/2014



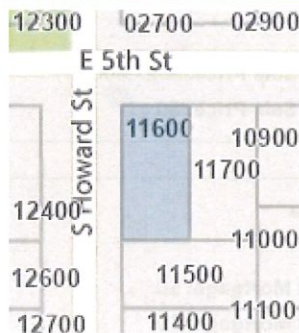
**Legal Owner:** Justin Wikler & Rachel Neville  
**Site Address:** 410 E 5th St Newberg, OR 97132  
**Mailing Address:** 410 E 5th St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 1  
**Building SqFt:** 1,284                      **Lot Acres:** 0.12  
**Year Built:** 1962  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR D TAXLOT 12500

**APN:** 50009  
**Ref Parcel #:** R3219AD 12500  
**Taxes:** \$2,296.42  
**Market Value:** \$262,931  
**Assessed Value:** \$155,026  
**Sales Price:** \$434,900  
**Transfer Date:** 7/23/2021



**Legal Owner:** Roger Liebenow  
**Site Address:** 406 E 5th St Newberg, OR 97132  
**Mailing Address:** 406 E 5th St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 1  
**Building SqFt:** 1,008                      **Lot Acres:** 0.12  
**Year Built:** 1914  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** SEE METES & BOUNDS

**APN:** 49995  
**Ref Parcel #:** R3219AD 13300  
**Taxes:** \$1,695.70  
**Market Value:** \$255,896  
**Assessed Value:** \$114,473  
**Sales Price:** \$0  
**Transfer Date:**



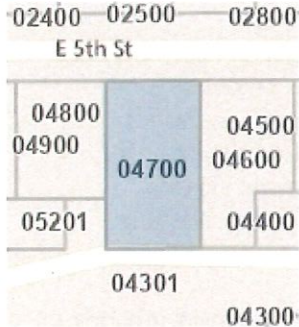
**Legal Owner:** Cadd Helen R Surviving Cadd Living Trust  
**Site Address:** 502 E 5th St Newberg, OR 97132  
**Mailing Address:** 909 E Fulton St Newberg, OR 97132  
**Bedrooms:** 4  
**Bathrooms:** 2  
**Building SqFt:** 1,596                      **Lot Acres:** 0.12  
**Year Built:** 1946  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR D TAXLOT 11600 LOT 11 BLOCK 4

**APN:** 54014  
**Ref Parcel #:** R3219AD 11600  
**Taxes:** \$2,598.41  
**Market Value:** \$274,852  
**Assessed Value:** \$175,413  
**Sales Price:** \$0  
**Transfer Date:**



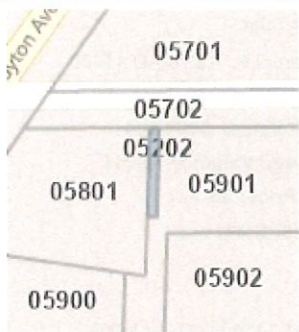
**First American Title™**

Customer Service Department  
 Phone: 503.219.8746(TRIO)  
 Email: cs.oregon@firstam.com  
 Report Generated: 11/17/2021



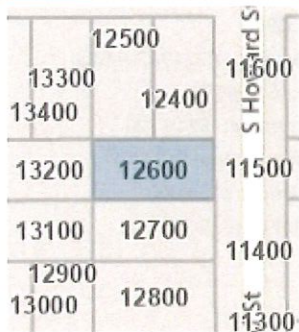
**Legal Owner:** Kevin Wessels  
**Site Address:** 304 E 5th St Newberg, OR 97132  
**Mailing Address:** 304 E 5th St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2.5  
**Building SqFt:** 1,495      **Lot Acres:** 0.29  
**Year Built:** 1963  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 04700

**APN:** 50429  
**Ref Parcel #:** R3219AC 04700  
**Taxes:** \$3,002.85  
**Market Value:** \$354,438  
**Assessed Value:** \$202,716  
**Sales Price:** \$60,000  
**Transfer Date:** 4/28/2006



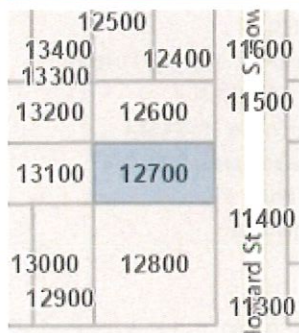
**Legal Owner:** Hans Jensen  
**Site Address:** No Site Address Newberg, OR 97132  
**Mailing Address:** 22330 NE Highway 240 Newberg, OR 97132  
**Bedrooms:** 0  
**Bathrooms:** 0  
**Building SqFt:** 0      **Lot Acres:** 0.01  
**Year Built:** 0  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 05202

**APN:** 504199  
**Ref Parcel #:** R3219AC 05202  
**Taxes:** \$5.98  
**Market Value:** \$582  
**Assessed Value:** \$404  
**Sales Price:** \$0  
**Transfer Date:**



**Legal Owner:** Autumn Haile  
**Site Address:** 509 S Howard St Newberg, OR 97132  
**Mailing Address:** 509 S Howard St Newberg, OR 97132  
**Bedrooms:** 2  
**Bathrooms:** 1  
**Building SqFt:** 732      **Lot Acres:** 0.12  
**Year Built:** 1910  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** SEE METES & BOUNDS

**APN:** 50045  
**Ref Parcel #:** R3219AD 12600  
**Taxes:** \$1,397.72  
**Market Value:** \$238,946  
**Assessed Value:** \$94,357  
**Sales Price:** \$315,000  
**Transfer Date:** 1/21/2021



**Legal Owner:** Gwendolyn Gilbertson  
**Site Address:** 513 S Howard St Newberg, OR 97132  
**Mailing Address:** 513 S Howard St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 2,016      **Lot Acres:** 0.12  
**Year Built:** 1910  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR D TAXLOT 12700

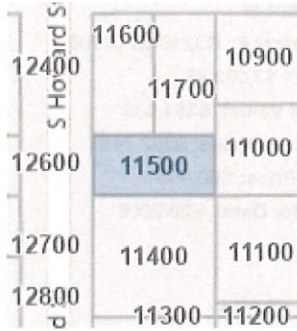
**APN:** 50063  
**Ref Parcel #:** R3219AD 12700  
**Taxes:** \$2,767.90  
**Market Value:** \$278,047  
**Assessed Value:** \$186,855  
**Sales Price:** \$95,213  
**Transfer Date:** 7/31/2007





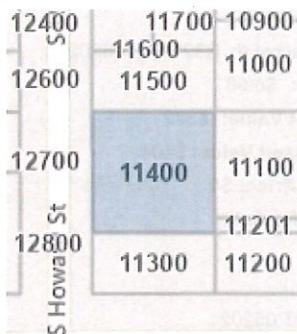
**First American Title™**

Customer Service Department  
 Phone: 503.219.8746(TRIO)  
 Email: cs.oregon@firstam.com  
 Report Generated: 11/17/2021



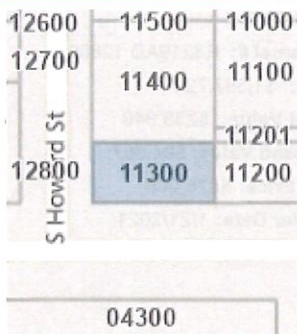
**Legal Owner:** Anthony & Wendy Vece  
**Site Address:** 508 S Howard St Newberg, OR 97132  
**Mailing Address:** 105 SW Spruce St Dundee, OR 97115  
**Bedrooms:** 2  
**Bathrooms:** 1  
**Building SqFt:** 943                      **Lot Acres:** 0.12  
**Year Built:** 1925  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR D TAXLOT 11500 LOT 10 BLOCK 4

**APN:** 54005  
**Ref Parcel #:** R3219AD 11500  
**Taxes:** \$1,338.75  
**Market Value:** \$236,131  
**Assessed Value:** \$90,376  
**Sales Price:** \$110,500  
**Transfer Date:** 9/28/2012



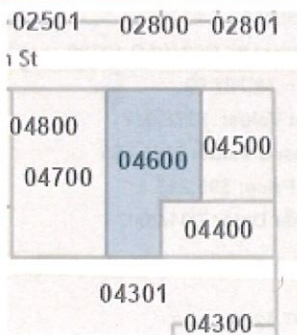
**Legal Owner:** Dorothy Tarpley  
**Site Address:** 512 S Howard St Newberg, OR 97132  
**Mailing Address:** 512 S Howard St Newberg, OR 97132  
**Bedrooms:** 2  
**Bathrooms:** 2  
**Building SqFt:** 1,188                      **Lot Acres:** 0.23  
**Year Built:** 1974  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR D TAXLOT 11400 LOT 8 AND 9

**APN:** 53998  
**Ref Parcel #:** R3219AD 11400  
**Taxes:** \$4,625.32  
**Market Value:** \$469,660  
**Assessed Value:** \$312,245  
**Sales Price:** \$0  
**Transfer Date:**



**Legal Owner:** Johanna Creech  
**Site Address:** 503 E 6th St Newberg, OR 97132  
**Mailing Address:** 17950 NW Brickstone Ln Beaverton, OR  
**Bedrooms:** 2  
**Bathrooms:** 1  
**Building SqFt:** 920                      **Lot Acres:** 0.12  
**Year Built:** 1950  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** LOT 7 - BLOCK 4 IN EDWARDS SECOND ADDITION

**APN:** 53989  
**Ref Parcel #:** R3219AD 11300  
**Taxes:** \$1,841.88  
**Market Value:** \$249,590  
**Assessed Value:** \$124,341  
**Sales Price:** \$169,900  
**Transfer Date:** 5/31/2006



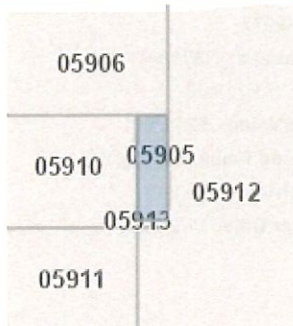
**Legal Owner:** Robert & Mary Mcbee  
**Site Address:** 308 E 5th St Newberg, OR 97132  
**Mailing Address:** 308 E 5th St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,417                      **Lot Acres:** 0.25  
**Year Built:** 1997  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 04600

**APN:** 50410  
**Ref Parcel #:** R3219AC 04600  
**Taxes:** \$3,791.90  
**Market Value:** \$434,184  
**Assessed Value:** \$255,983  
**Sales Price:** \$0  
**Transfer Date:**



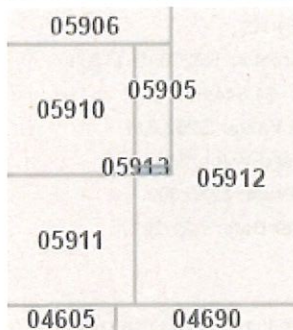
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



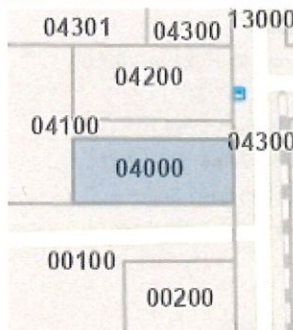
**Legal Owner:** Theodore & Paige Reuter  
**Site Address:** No Site Address Newberg, OR 97132  
**Mailing Address:** 124 W Johanna Ct Newberg, OR 97132  
**Bedrooms:** 0  
**Bathrooms:** 0  
**Building SqFt:** 0                      **Lot Acres:** 0.03  
**Year Built:** 0  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 05905

**APN:** 505543  
**Ref Parcel #:** R3219AC 05905  
**Taxes:** \$75.36  
**Market Value:** \$5,172  
**Assessed Value:** \$5,172  
**Sales Price:** \$110,000  
**Transfer Date:** 5/29/2008



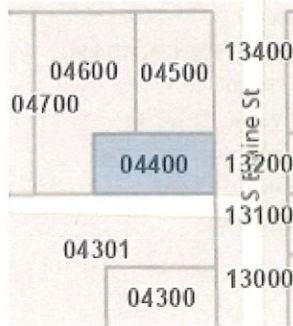
**Legal Owner:** Theodore & Paige Reuter  
**Site Address:** No Site Address Newberg, OR 97132  
**Mailing Address:** 124 W Johanna Ct Newberg, OR 97132  
**Bedrooms:** 0  
**Bathrooms:** 0  
**Building SqFt:** 0                      **Lot Acres:** 0.00  
**Year Built:** 0  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 05913

**APN:** 538735  
**Ref Parcel #:** R3219AC 05913  
**Taxes:** \$7.06  
**Market Value:** \$485  
**Assessed Value:** \$485  
**Sales Price:** \$229,000  
**Transfer Date:** 3/26/2013



**Legal Owner:** Larry Cox  
**Site Address:** 603 S Blaine St Newberg, OR 97132  
**Mailing Address:** 603 S Blaine St Newberg, OR 97132  
**Bedrooms:** 4  
**Bathrooms:** 2  
**Building SqFt:** 1,692                      **Lot Acres:** 0.28  
**Year Built:** 1992  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** SEE METES & BOUNDS

**APN:** 50349  
**Ref Parcel #:** R3219AC 04000  
**Taxes:** \$4,820.55  
**Market Value:** \$487,806  
**Assessed Value:** \$325,425  
**Sales Price:** \$478,000  
**Transfer Date:** 2/7/2020



**Legal Owner:** Bruno Preciozzi & Arianne Reagor  
**Site Address:** 509 S Blaine St Newberg, OR 97132  
**Mailing Address:** 509 S Blaine St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,219                      **Lot Acres:** 0.12  
**Year Built:** 1996  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 04400

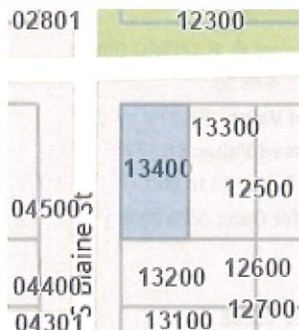
**APN:** 50385  
**Ref Parcel #:** R3219AC 04400  
**Taxes:** \$2,736.16  
**Market Value:** \$328,349  
**Assessed Value:** \$184,712  
**Sales Price:** \$214,000  
**Transfer Date:** 1/15/2015





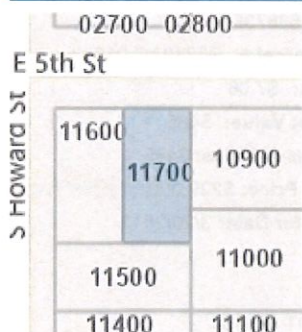
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



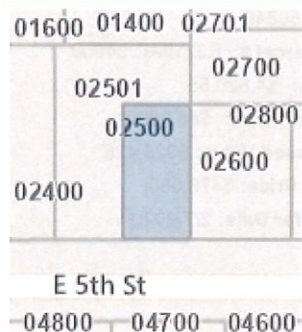
**Legal Owner:** Sarah & Jason Harris  
**Site Address:** 400 E 5th St Newberg, OR 97132  
**Mailing Address:** 5136 SE 37th Ave Portland, OR 97202  
**Bedrooms:** 2  
**Bathrooms:** 1  
**Building SqFt:** 1,200      **Lot Acres:** 0.12  
**Year Built:** 1908  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** SEE METES & BOUNDS

**APN:** 49977  
**Ref Parcel #:** R3219AD 13400  
**Taxes:** \$1,716.13  
**Market Value:** \$241,344  
**Assessed Value:** \$115,852  
**Sales Price:** \$338,000  
**Transfer Date:** 11/2/2020



**Legal Owner:** Talia Bollard  
**Site Address:** 506 E 5th St Newberg, OR 97132  
**Mailing Address:** 506 E 5th St Newberg, OR 97132  
**Bedrooms:** 2  
**Bathrooms:** 2.5  
**Building SqFt:** 1,327      **Lot Acres:** 0.12  
**Year Built:** 1927  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR D TAXLOT 11700 LOT 11 BLOCK 4

**APN:** 54023  
**Ref Parcel #:** R3219AD 11700  
**Taxes:** \$1,844.59  
**Market Value:** \$262,811  
**Assessed Value:** \$124,524  
**Sales Price:** \$275,000  
**Transfer Date:** 7/27/2017



**Legal Owner:** Brad Holbrook & Fangyi Liao-Holbrook  
**Site Address:** 301 E 5th St Newberg, OR 97132  
**Mailing Address:** 301 E 5th St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 1  
**Building SqFt:** 1,024      **Lot Acres:** 0.12  
**Year Built:** 1974  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 02500

**APN:** 49851  
**Ref Parcel #:** R3219AC 02500  
**Taxes:** \$2,247.24  
**Market Value:** \$268,701  
**Assessed Value:** \$151,706  
**Sales Price:** \$182,800  
**Transfer Date:** 8/18/2014



**Legal Owner:** Friends Of Chehalem House  
**Site Address:** 100 E 5th St Newberg, OR 97132  
**Mailing Address:** Po Box 548 Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,500      **Lot Acres:** 0.09  
**Year Built:** 1900  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** SEE METES & BOUNDS

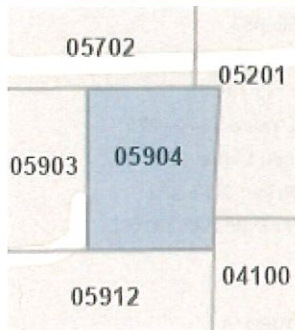
**APN:** 50615  
**Ref Parcel #:** R3219AC 05600  
**Taxes:** \$0.00  
**Market Value:** \$293,144  
**Assessed Value:** \$123,478  
**Sales Price:** \$0  
**Transfer Date:**





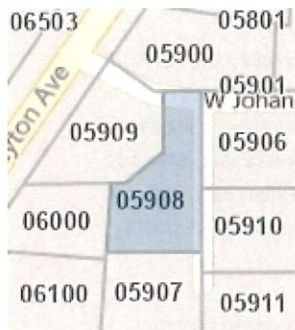
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



**Legal Owner:** Timothy Schneider  
**Site Address:** 101 W Johanna Ct Newberg, OR 97132  
**Mailing Address:** 101 W Johanna Ct Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2.5  
**Building SqFt:** 3,684      **Lot Acres:** 0.37  
**Year Built:** 1997  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** LOT 5 IN CRISMAN ESTATES

**APN:** 505540  
**Ref Parcel #:** R3219AC 05904  
**Taxes:** \$5,531.24  
**Market Value:** \$527,325  
**Assessed Value:** \$373,402  
**Sales Price:** \$0  
**Transfer Date:**



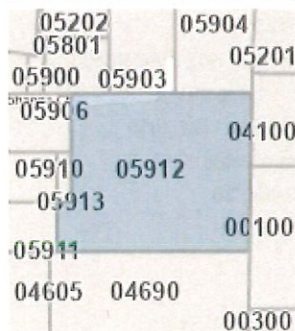
**Legal Owner:** Robert & Lillian Ralstin  
**Site Address:** 140 W Johanna Ct Newberg, OR 97132  
**Mailing Address:** 140 W Johanna Ct Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2.5  
**Building SqFt:** 1,664      **Lot Acres:** 0.18  
**Year Built:** 1996  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** LOT 9 IN CRISMAN ESTATES

**APN:** 505552  
**Ref Parcel #:** R3219AC 05908  
**Taxes:** \$3,163.92  
**Market Value:** \$363,726  
**Assessed Value:** \$240,817  
**Sales Price:** \$0  
**Transfer Date:** 9/8/2020



**Legal Owner:** Kennedy Reese C & Ruth U Kennedy Family Trust  
**Site Address:** 618 S Dayton Ave Newberg, OR 97132  
**Mailing Address:** 618 S Dayton Ave Newberg, OR 97132  
**Bedrooms:** 0  
**Bathrooms:** 0  
**Building SqFt:** 0      **Lot Acres:** 0.93  
**Year Built:** 0  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR D QQTR B TAXLOT 04602

**APN:** 56414  
**Ref Parcel #:** R3219DB 04602  
**Taxes:** \$1,651.20  
**Market Value:** \$305,437  
**Assessed Value:** \$111,469  
**Sales Price:** \$0  
**Transfer Date:**



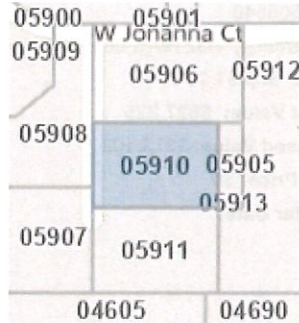
**Legal Owner:** Rea Andrew  
**Site Address:** 100 W Johanna Ct Newberg, OR 97132  
**Mailing Address:** 100 W Johanna Ct Newberg, OR 97132  
**Bedrooms:** 4  
**Bathrooms:** 3  
**Building SqFt:** 2,638      **Lot Acres:** 1.37  
**Year Built:** 1963  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 05912

**APN:** 528985  
**Ref Parcel #:** R3219AC 05912  
**Taxes:** \$7,015.91  
**Market Value:** \$591,972  
**Assessed Value:** \$473,629  
**Sales Price:** \$352,000  
**Transfer Date:** 4/21/2017



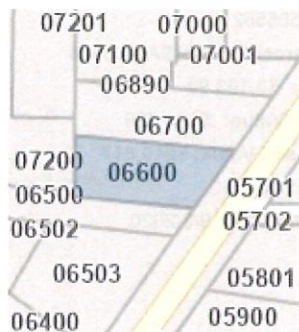
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



**Legal Owner:** Theodore & Paige Reuter  
**Site Address:** 124 W Johanna Ct Newberg, OR 97132  
**Mailing Address:** 124 W Johanna Ct Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,546      **Lot Acres:** 0.17  
**Year Built:** 2012  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 05910

**APN:** 508087  
**Ref Parcel #:** R3219AC 05910  
**Taxes:** \$3,436.15  
**Market Value:** \$404,275  
**Assessed Value:** \$231,967  
**Sales Price:** \$285,982  
**Transfer Date:** 9/2/2015



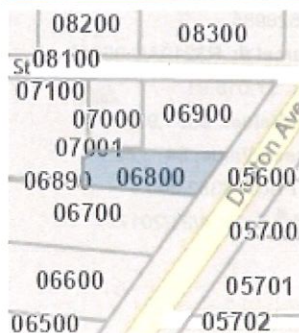
**Legal Owner:** Troy & Jennifer Rossetti  
**Site Address:** 515 S Dayton Ave Newberg, OR 97132  
**Mailing Address:** 515 S Dayton Ave Newberg, OR 97132  
**Bedrooms:** 2  
**Bathrooms:** 2  
**Building SqFt:** 1,000      **Lot Acres:** 0.22  
**Year Built:** 1947  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 06600 LOT 26

**APN:** 51213  
**Ref Parcel #:** R3219AC 06600  
**Taxes:** \$2,385.23  
**Market Value:** \$344,678  
**Assessed Value:** \$161,022  
**Sales Price:** \$200,000  
**Transfer Date:** 8/31/2006



**Legal Owner:** Schmidt Charles M & Fonda R (Trustees Of)  
**Site Address:** Schmidt Charles M  
**Mailing Address:** 514 S Dayton Ave Newberg, OR 97132  
**Bedrooms:** 4  
**Bathrooms:** 3  
**Building SqFt:** 4,010      **Lot Acres:** 1.07  
**Year Built:** 1986  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 04301

**APN:** 408543  
**Ref Parcel #:** R3219AC 04301  
**Taxes:** \$7,171.04  
**Market Value:** \$808,118  
**Assessed Value:** \$484,101  
**Sales Price:** \$0  
**Transfer Date:**



**Legal Owner:** Glen & Charlie Johnson  
**Site Address:** 505 S Dayton Ave Newberg, OR 97132  
**Mailing Address:** 505 S Dayton Ave Newberg, OR 97132  
**Bedrooms:** 2  
**Bathrooms:** 1  
**Building SqFt:** 864      **Lot Acres:** 0.10  
**Year Built:** 1952  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 06800 LOT 27

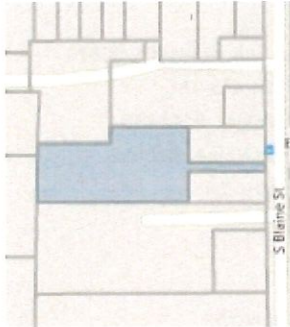
**APN:** 51231  
**Ref Parcel #:** R3219AC 06800  
**Taxes:** \$1,435.95  
**Market Value:** \$215,930  
**Assessed Value:** \$96,938  
**Sales Price:** \$0  
**Transfer Date:**





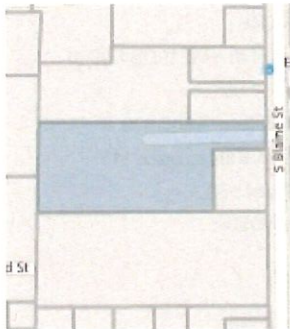
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



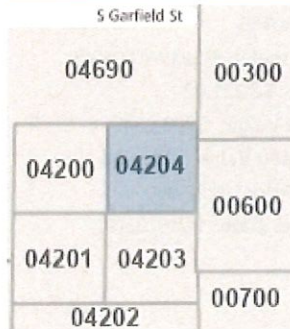
**Legal Owner:** Zone Holdings Llc  
**Site Address:** 601 S Blaine St Newberg, OR 97132  
**Mailing Address:** 601 S Blaine St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,581                      **Lot Acres:** 1.25  
**Year Built:** 1968  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** SEE METES & BOUNDS

**APN:** 50358  
**Ref Parcel #:** R3219AC 04100  
**Taxes:** \$3,765.58  
**Market Value:** \$584,468  
**Assessed Value:** \$254,206  
**Sales Price:** \$327,500  
**Transfer Date:** 11/14/2019



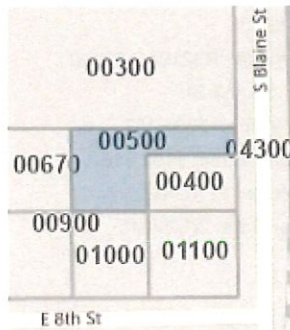
**Legal Owner:** Li Ren Equity Llc  
**Site Address:** 611 S Blaine St Newberg, OR 97132  
**Mailing Address:** 13025 SW Allen Blvd Beaverton, OR 97005  
**Bedrooms:** 0  
**Bathrooms:** 0  
**Building SqFt:** 0                              **Lot Acres:** 1.98  
**Year Built:** 0  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR D QQTR B TAXLOT 00100

**APN:** 54684  
**Ref Parcel #:** R3219DB 00100  
**Taxes:** \$35,873.98  
**Market Value:** \$3,571,200  
**Assessed Value:** \$2,421,774  
**Sales Price:** \$2,030,000  
**Transfer Date:** 5/8/2014



**Legal Owner:** Ronnie & Ruth Palmer  
**Site Address:** 704 S Garfield St Newberg, OR 97132  
**Mailing Address:** 704 S Garfield St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,188                      **Lot Acres:** 0.09  
**Year Built:** 1997  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR D QQTR B TAXLOT 04204

**APN:** 509077  
**Ref Parcel #:** R3219DB 04204  
**Taxes:** \$2,798.12  
**Market Value:** \$222,538  
**Assessed Value:** \$188,895  
**Sales Price:** \$0  
**Transfer Date:**



**Legal Owner:** David & Jonni Maben  
**Site Address:** S Blaine St Newberg, OR 97132  
**Mailing Address:** 309 E 8th St Newberg, OR 97132  
**Bedrooms:** 0  
**Bathrooms:** 0  
**Building SqFt:** 0                              **Lot Acres:** 0.25  
**Year Built:** 0  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR D QQTR B TAXLOT 00500

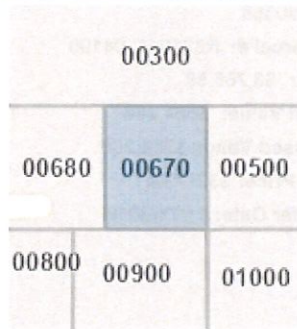
**APN:** 54764  
**Ref Parcel #:** R3219DB 00500  
**Taxes:** \$789.03  
**Market Value:** \$269,940  
**Assessed Value:** \$53,266  
**Sales Price:** \$0  
**Transfer Date:**





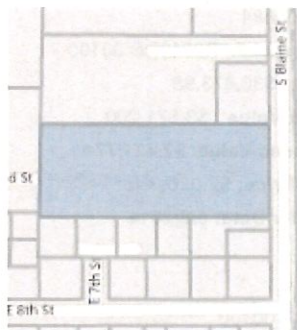
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



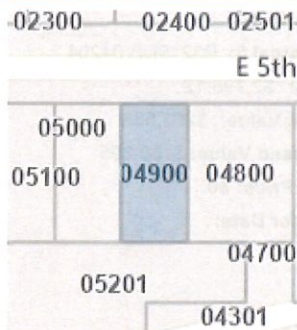
**Legal Owner:** Timothy & Laurel Mueller  
**Site Address:** 109 E 7th St Newberg, OR 97132  
**Mailing Address:** Po Box 157 Carlton, OR 97111  
**Bedrooms:** 4  
**Bathrooms:** 2  
**Building SqFt:** 1,566      **Lot Acres:** 0.16  
**Year Built:** 1970  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR D QQTR B TAXLOT 00670

**APN:** 54782  
**Ref Parcel #:** R3219DB 00670  
**Taxes:** \$1,446.97  
**Market Value:** \$312,658  
**Assessed Value:** \$97,682  
**Sales Price:** \$0  
**Transfer Date:**



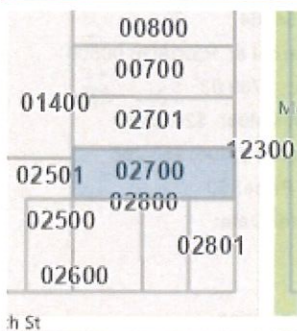
**Legal Owner:** School District No 29  
**Site Address:** 703 S Blaine St Newberg, OR 97132  
**Mailing Address:** 535 NE 5th St McMinnville, OR 97128  
**Bedrooms:** 0  
**Bathrooms:** 0  
**Building SqFt:** 0      **Lot Acres:** 2.56  
**Year Built:** 0  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR D QQTR B TAXLOT 00300

**APN:** 54746  
**Ref Parcel #:** R3219DB 00300  
**Taxes:** \$0.00  
**Market Value:** \$888,820  
**Assessed Value:** \$422,113  
**Sales Price:** \$0  
**Transfer Date:**



**Legal Owner:** Pamela Collier  
**Site Address:** 210 E 5th St Newberg, OR 97132  
**Mailing Address:** 210 E 5th St Newberg, OR 97132  
**Bedrooms:** 2  
**Bathrooms:** 1  
**Building SqFt:** 1,103      **Lot Acres:** 0.12  
**Year Built:** 1909  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** SEE METES & BOUNDS

**APN:** 50456  
**Ref Parcel #:** R3219AC 04900  
**Taxes:** \$2,221.42  
**Market Value:** \$267,054  
**Assessed Value:** \$149,963  
**Sales Price:** \$222,000  
**Transfer Date:** 11/13/2019



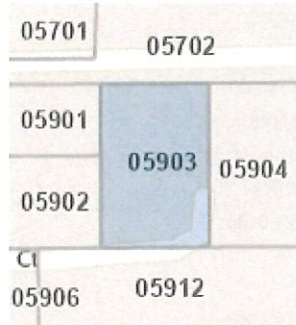
**Legal Owner:** Matthew Greensmith & Maggie Young-Greensmith  
**Site Address:** 6002 SE Reedway St Newberg, OR 97132  
**Mailing Address:** 6002 SE Reedway St Portland, OR 97206  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,040      **Lot Acres:** 0.22  
**Year Built:** 1991  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 02700

**APN:** 49940  
**Ref Parcel #:** R3219AC 02700  
**Taxes:** \$2,853.24  
**Market Value:** \$304,457  
**Assessed Value:** \$192,616  
**Sales Price:** \$170,000  
**Transfer Date:** 3/30/2010



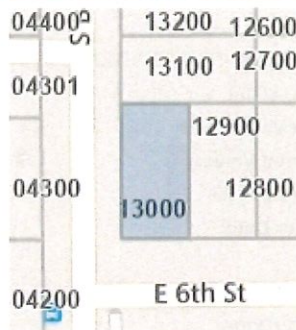
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



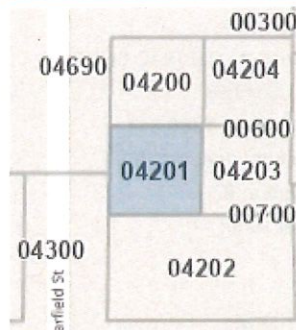
**Legal Owner:** James & Heather Birchill  
**Site Address:** 109 W Johanna Ct Newberg, OR 97132  
**Mailing Address:** 109 W Johanna Ct Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 3  
**Building SqFt:** 2,397      **Lot Acres:** 0.31  
**Year Built:** 1997  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 05903 LOT 4

**APN:** 505537  
**Ref Parcel #:** R3219AC 05903  
**Taxes:** \$4,542.53  
**Market Value:** \$507,090  
**Assessed Value:** \$329,345  
**Sales Price:** \$523,000  
**Transfer Date:** 10/22/2020



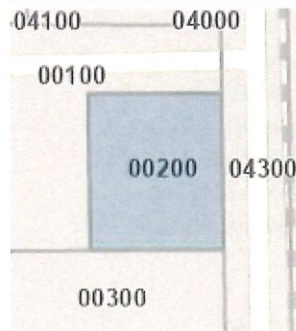
**Legal Owner:** Christopher Nielsen  
**Site Address:** 403 E 6th St Newberg, OR 97132  
**Mailing Address:** 403 E 6th St Newberg, OR 97132  
**Bedrooms:** 2  
**Bathrooms:** 1  
**Building SqFt:** 672      **Lot Acres:** 0.12  
**Year Built:** 1946  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR D TAXLOT 13000

**APN:** 50312  
**Ref Parcel #:** R3219AD 13000  
**Taxes:** \$1,541.98  
**Market Value:** \$236,908  
**Assessed Value:** \$104,096  
**Sales Price:** \$0  
**Transfer Date:**



**Legal Owner:** Delmar & Darlene Washburn  
**Site Address:** 706 S Garfield St Newberg, OR 97132  
**Mailing Address:** 10820 NE Stevenson Rd Newberg, OR  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,080      **Lot Acres:** 0.09  
**Year Built:** 1998  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR D QQTR B TAXLOT 04201

**APN:** 501829  
**Ref Parcel #:** R3219DB 04201  
**Taxes:** \$2,802.88  
**Market Value:** \$210,652  
**Assessed Value:** \$189,216  
**Sales Price:** \$0  
**Transfer Date:**



**Legal Owner:** Seronello Lee R & Ann J Seronello Lee R & Ann J Family Trust  
**Site Address:** 14 Ridgetop Way Napa, CA 94558  
**Mailing Address:** 14 Ridgetop Way Napa, CA 94558  
**Bedrooms:** 8  
**Bathrooms:** 4  
**Building SqFt:** 1,920      **Lot Acres:** 0.39  
**Year Built:** 1970  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR D QQTR B TAXLOT 00200

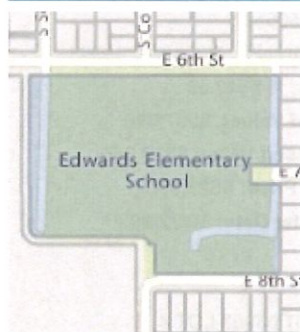
**APN:** 54728  
**Ref Parcel #:** R3219DB 00200  
**Taxes:** \$4,959.90  
**Market Value:** \$433,467  
**Assessed Value:** \$334,832  
**Sales Price:** \$334,850  
**Transfer Date:** 6/8/2005





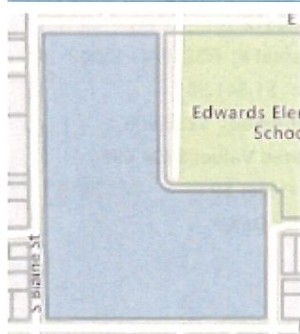
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



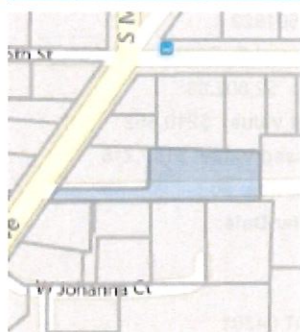
**Legal Owner:** School District No 29  
**Site Address:** 715 E 5th St Newberg, OR 97132  
**Mailing Address:** 535 NE 5th St McMinnville, OR 97128  
**Bedrooms:** 0  
**Bathrooms:** 0  
**Building SqFt:** 0                      **Lot Acres:** 14.28  
**Year Built:** 0  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR D QQTR A TAXLOT 04200

**APN:** 56272  
**Ref Parcel #:** R3219DA 04200  
**Taxes:** \$0.00  
**Market Value:** \$0  
**Assessed Value:** \$0  
**Sales Price:** \$0  
**Transfer Date:**



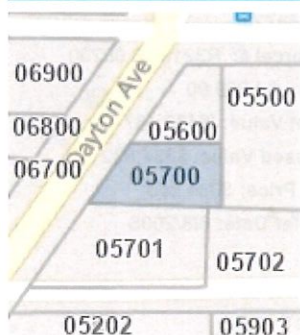
**Legal Owner:** School District No 6  
**Site Address:** No Site Address Newberg, OR 97132  
**Mailing Address:** 535 NE 5th St McMinnville, OR 97128  
**Bedrooms:** 0  
**Bathrooms:** 0  
**Building SqFt:** 0                      **Lot Acres:** 13.81  
**Year Built:** 0  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR D QQTR A TAXLOT 04300

**APN:** 56281  
**Ref Parcel #:** R3219DA 04300  
**Taxes:** \$0.00  
**Market Value:** \$0  
**Assessed Value:** \$0  
**Sales Price:** \$0  
**Transfer Date:**



**Legal Owner:** Schmidt Charles M & Fonda R (Trustees Of)  
**Site Address:** Schmidt Charles M  
**Mailing Address:** 514 S Dayton Ave Newberg, OR 97132  
**Bedrooms:** 0  
**Bathrooms:** 0  
**Building SqFt:** 0                      **Lot Acres:** 0.51  
**Year Built:** 0  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 05702

**APN:** 482566  
**Ref Parcel #:** R3219AC 05702  
**Taxes:** \$618.98  
**Market Value:** \$180,844  
**Assessed Value:** \$41,786  
**Sales Price:** \$0  
**Transfer Date:**



**Legal Owner:** Shannon Morales & Ryan Johnson  
**Site Address:** 508 S Dayton Ave Newberg, OR 97132  
**Mailing Address:** 508 S Dayton Ave Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 1  
**Building SqFt:** 1,020                      **Lot Acres:** 0.13  
**Year Built:** 1973  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 05700

**APN:** 50624  
**Ref Parcel #:** R3219AC 05700  
**Taxes:** \$2,282.12  
**Market Value:** \$278,327  
**Assessed Value:** \$154,061  
**Sales Price:** \$312,000  
**Transfer Date:** 8/3/2018

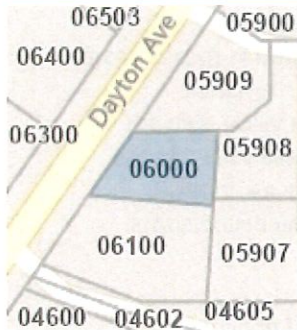
*First American Title Insurance Company makes no express or implied warranty respecting the Information presented and assumes no responsibility for errors or omissions. FIRST AMERICAN, the Eagle logo, and FIRST AMERICAN TITLE INSURANCE COMPANY are trademarks owned by First American Financial Corporation. Information is provided by Home Junction. <https://www.homejunction.com/> School information is copyrighted and provided by GreatSchools.org. <https://www.greatschools.org>*





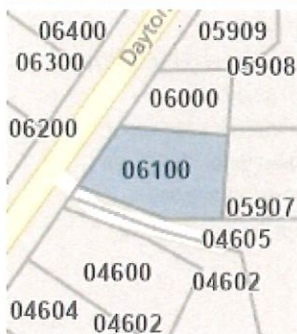
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



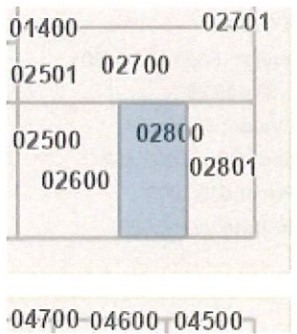
**Legal Owner:** Timothy Thielen  
**Site Address:** 606 S Dayton Ave Newberg, OR 97132  
**Mailing Address:** 606 S Dayton Ave Newberg, OR 97132  
**Bedrooms:** 2  
**Bathrooms:** 1  
**Building SqFt:** 903                      **Lot Acres:** 0.13  
**Year Built:** 1951  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 06000

**APN:** 50740  
**Ref Parcel #:** R3219AC 06000  
**Taxes:** \$1,903.94  
**Market Value:** \$247,734  
**Assessed Value:** \$128,531  
**Sales Price:** \$106,000  
**Transfer Date:** 4/17/2012



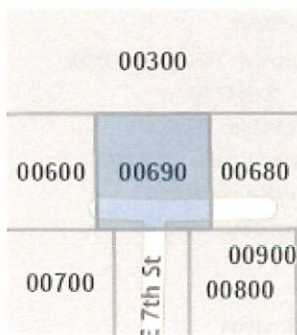
**Legal Owner:** Andrea & Christopher Mooney  
**Site Address:** 610 S Dayton Ave Newberg, OR 97132  
**Mailing Address:** 610 S Dayton Ave Newberg, OR 97132  
**Bedrooms:** 2  
**Bathrooms:** 1  
**Building SqFt:** 1,452                      **Lot Acres:** 0.24  
**Year Built:** 1950  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 06100

**APN:** 50759  
**Ref Parcel #:** R3219AC 06100  
**Taxes:** \$2,653.74  
**Market Value:** \$341,825  
**Assessed Value:** \$179,148  
**Sales Price:** \$192,900  
**Transfer Date:** 8/16/2013



**Legal Owner:** Robert Brownell & Nancy Bradetich  
**Site Address:** 309 E 5th St Newberg, OR 97132  
**Mailing Address:** 309 E 5th St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,040                      **Lot Acres:** 0.12  
**Year Built:** 1992  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 02800

**APN:** 49959  
**Ref Parcel #:** R3219AC 02800  
**Taxes:** \$2,478.36  
**Market Value:** \$275,166  
**Assessed Value:** \$167,309  
**Sales Price:** \$175,000  
**Transfer Date:** 7/11/2014



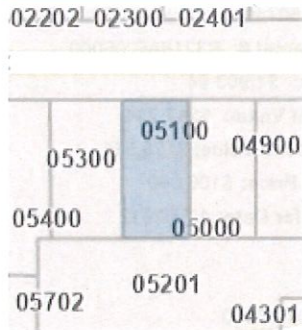
**Legal Owner:** Jose Baca  
**Site Address:** 201 E 7th St Newberg, OR 97132  
**Mailing Address:** 201 E 7th St Newberg, OR 97132  
**Bedrooms:** 4  
**Bathrooms:** 2  
**Building SqFt:** 1,566                      **Lot Acres:** 0.19  
**Year Built:** 1970  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR D QQTR B TAXLOT 00690

**APN:** 54817  
**Ref Parcel #:** R3219DB 00690  
**Taxes:** \$2,452.15  
**Market Value:** \$330,882  
**Assessed Value:** \$165,539  
**Sales Price:** \$220,000  
**Transfer Date:** 6/19/2015



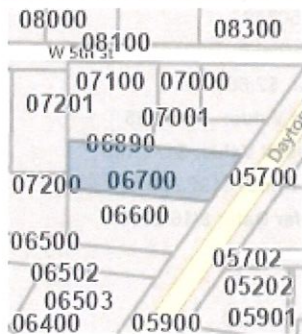
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



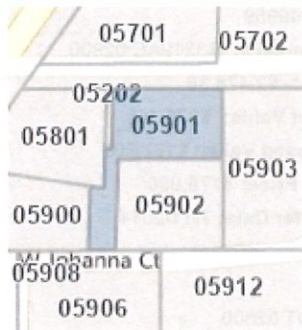
**Legal Owner:** Mark Bartlett  
**Site Address:** 202 E 5th St Newberg, OR 97132  
**Mailing Address:** 202 E 5th St Newberg, OR 97132  
**Bedrooms:** 2  
**Bathrooms:** 1  
**Building SqFt:** 781                      **Lot Acres:** 0.12  
**Year Built:** 1910  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 05100

**APN:** 50517  
**Ref Parcel #:** R3219AC 05100  
**Taxes:** \$1,423.06  
**Market Value:** \$231,651  
**Assessed Value:** \$96,068  
**Sales Price:** \$122,500  
**Transfer Date:** 3/5/2015



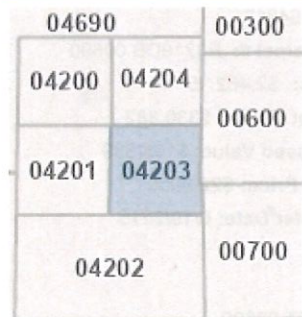
**Legal Owner:** Calum Hill & Dallas Malone  
**Site Address:** 511 S Dayton Ave Newberg, OR 97132  
**Mailing Address:** 511 S Dayton Ave Newberg, OR 97132  
**Bedrooms:** 2  
**Bathrooms:** 1  
**Building SqFt:** 822                      **Lot Acres:** 0.26  
**Year Built:** 1948  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** PORTIONS OF LOTS 26 & 27 IN LITTLE HOMES

**APN:** 51222  
**Ref Parcel #:** R3219AC 06700  
**Taxes:** \$2,047.02  
**Market Value:** \$280,000  
**Assessed Value:** \$138,190  
**Sales Price:** \$285,000  
**Transfer Date:** 6/11/2019



**Legal Owner:** Lilia Andrade  
**Site Address:** 119 W Johanna Ct Newberg, OR 97132  
**Mailing Address:** 119 W Johanna Ct Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,525                      **Lot Acres:** 0.18  
**Year Built:** 1997  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** LOT 2 IN CRISMAN ESTATES

**APN:** 505531  
**Ref Parcel #:** R3219AC 05901  
**Taxes:** \$3,449.26  
**Market Value:** \$358,526  
**Assessed Value:** \$232,852  
**Sales Price:** \$400,000  
**Transfer Date:** 8/25/2020



**Legal Owner:** David & Lisa Hirschfeld  
**Site Address:** 708 S Garfield St Newberg, OR 97132  
**Mailing Address:** 225 NW Brier Ave Dundee, OR 97115  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,188                      **Lot Acres:** 0.09  
**Year Built:** 1998  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR D QQTR B TAXLOT 04203

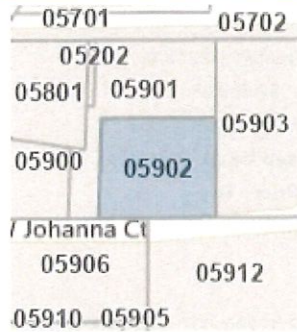
**APN:** 509497  
**Ref Parcel #:** R3219DB 04203  
**Taxes:** \$2,847.82  
**Market Value:** \$229,479  
**Assessed Value:** \$192,250  
**Sales Price:** \$155,000  
**Transfer Date:** 3/3/2016





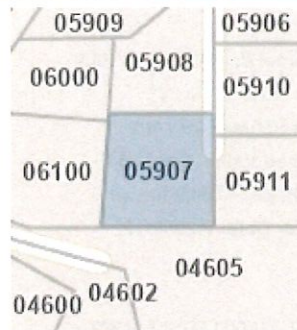
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



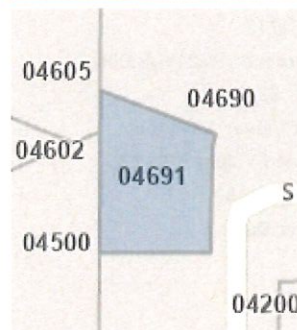
**Legal Owner:** Stewart & Laura Weed  
**Site Address:** 115 W Johanna Ct Newberg, OR 97132  
**Mailing Address:** 115 W Johanna Ct Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,576      **Lot Acres:** 0.17  
**Year Built:** 1997  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 05902 LOT 3

**APN:** 505534  
**Ref Parcel #:** R3219AC 05902  
**Taxes:** \$3,424.63  
**Market Value:** \$354,954  
**Assessed Value:** \$231,189  
**Sales Price:** \$325,000  
**Transfer Date:** 6/21/2017



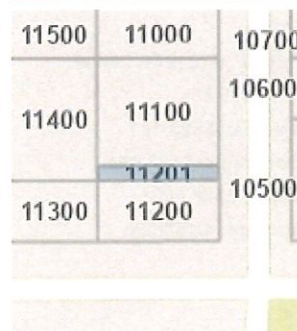
**Legal Owner:** Monica Chapman  
**Site Address:** 130 W Johanna Ct Newberg, OR 97132  
**Mailing Address:** 130 W Johanna Ct Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2.5  
**Building SqFt:** 1,536      **Lot Acres:** 0.17  
**Year Built:** 1996  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 05907 LOT 8

**APN:** 505549  
**Ref Parcel #:** R3219AC 05907  
**Taxes:** \$3,416.24  
**Market Value:** \$350,779  
**Assessed Value:** \$230,623  
**Sales Price:** \$295,000  
**Transfer Date:** 9/30/2016



**Legal Owner:** David & Debby Thomas  
**Site Address:** 733 S Garfield St Newberg, OR 97132  
**Mailing Address:** 733 S Garfield St Newberg, OR 97132  
**Bedrooms:** 4  
**Bathrooms:** 3  
**Building SqFt:** 3,280      **Lot Acres:** 0.27  
**Year Built:** 1985  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR D QQTR B TAXLOT 04691

**APN:** 460325  
**Ref Parcel #:** R3219DB 04691  
**Taxes:** \$4,781.25  
**Market Value:** \$530,838  
**Assessed Value:** \$322,772  
**Sales Price:** \$349,000  
**Transfer Date:** 2/23/2016



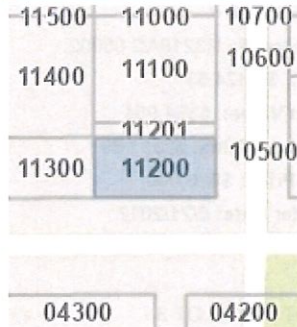
**Legal Owner:** Delmer & Nicola Munroe  
**Site Address:** S School St Newberg, OR 97132  
**Mailing Address:** 521 S School St Newberg, OR 97132  
**Bedrooms:** 0  
**Bathrooms:** 0  
**Building SqFt:** 0      **Lot Acres:** 0.03  
**Year Built:** 0  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR D TAXLOT 11201 LOT 5 BLOCK 4

**APN:** 53970  
**Ref Parcel #:** R3219AD 11201  
**Taxes:** \$33.92  
**Market Value:** \$2,328  
**Assessed Value:** \$2,328  
**Sales Price:** \$0  
**Transfer Date:**



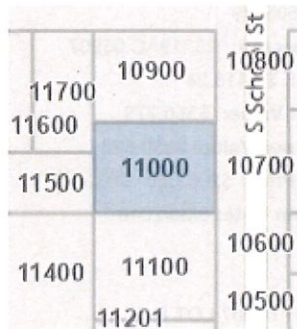
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



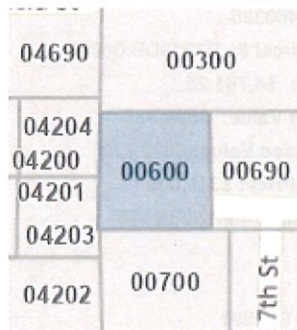
**Legal Owner:** Delmer & Nicola Munroe  
**Site Address:** 521 S School St Newberg, OR 97132  
**Mailing Address:** 521 S School St Newberg, OR 97132  
**Bedrooms:** 4  
**Bathrooms:** 2  
**Building SqFt:** 2,328      **Lot Acres:** 0.12  
**Year Built:** 1917  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR D TAXLOT 11200 LOT 6 BLOCK 4

**APN:** 53961  
**Ref Parcel #:** R3219AD 11200  
**Taxes:** \$2,669.38  
**Market Value:** \$328,363  
**Assessed Value:** \$180,204  
**Sales Price:** \$0  
**Transfer Date:**



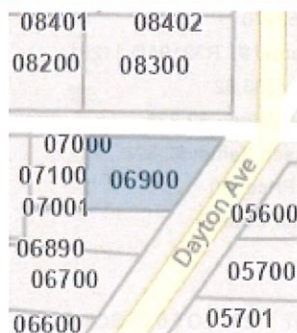
**Legal Owner:** Candace Peterson  
**Site Address:** 509 S School St Newberg, OR 97132  
**Mailing Address:** 509 S School St Newberg, OR 97132  
**Bedrooms:** 2  
**Bathrooms:** 1  
**Building SqFt:** 1,172      **Lot Acres:** 0.17  
**Year Built:** 1909  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR D TAXLOT 11000 LOT 3 BLOCK 4

**APN:** 53943  
**Ref Parcel #:** R3219AD 11000  
**Taxes:** \$2,418.40  
**Market Value:** \$295,402  
**Assessed Value:** \$163,261  
**Sales Price:** \$154,900  
**Transfer Date:** 6/29/2012



**Legal Owner:** Jose Baca  
**Site Address:** 207 E 7th St Newberg, OR 97132  
**Mailing Address:** 2618 NW Hayes Rd Woodland, WA 98674  
**Bedrooms:** 4  
**Bathrooms:** 2  
**Building SqFt:** 1,566      **Lot Acres:** 0.18  
**Year Built:** 1970  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** SEE METES & BOUNDS

**APN:** 54773  
**Ref Parcel #:** R3219DB 00600  
**Taxes:** \$2,738.04  
**Market Value:** \$341,399  
**Assessed Value:** \$184,839  
**Sales Price:** \$0  
**Transfer Date:**



**Legal Owner:** Jeff Schiedler  
**Site Address:** 110 W 5th St Newberg, OR 97132  
**Mailing Address:** 110 W 5th St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 1  
**Building SqFt:** 2,612      **Lot Acres:** 0.16  
**Year Built:** 1959  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** PT LOT 27 IN LITTLE HOMES

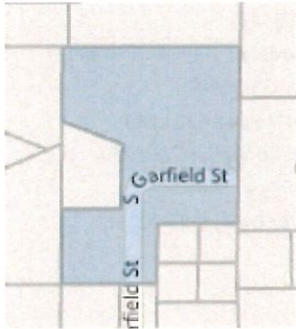
**APN:** 51240  
**Ref Parcel #:** R3219AC 06900  
**Taxes:** \$2,415.88  
**Market Value:** \$322,181  
**Assessed Value:** \$163,091  
**Sales Price:** \$328,000  
**Transfer Date:** 4/15/2020





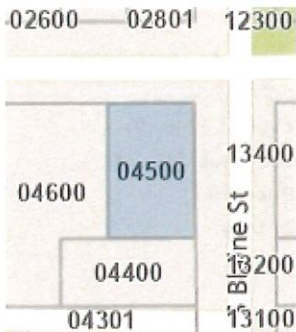
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



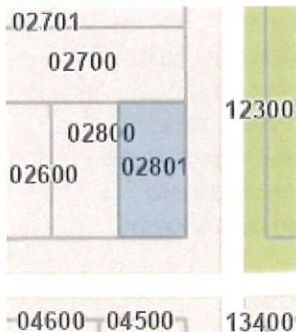
**Legal Owner:** Holden New Berg Qozb Llc  
**Site Address:** 100 S Garfield St Newberg, OR 97132  
**Mailing Address:** 5652 SW Northwood Ave Portland, OR  
**Bedrooms:** 4  
**Bathrooms:** 3  
**Building SqFt:** 2,004      **Lot Acres:** 1.95  
**Year Built:** 1970  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR D QQTR B TAXLOT 04690

**APN:** 56478  
**Ref Parcel #:** R3219DB 04690  
**Taxes:** \$3,640.13  
**Market Value:** \$1,105,973  
**Assessed Value:** \$245,737  
**Sales Price:** \$887,763  
**Transfer Date:** 8/26/2021



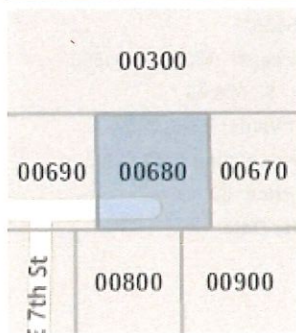
**Legal Owner:** Melissa Willey  
**Site Address:** 314 E 5th St Newberg, OR 97132  
**Mailing Address:** 314 E 5th St Newberg, OR 97132  
**Bedrooms:** 4  
**Bathrooms:** 1  
**Building SqFt:** 2,073      **Lot Acres:** 0.15  
**Year Built:** 1947  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 04500

**APN:** 50401  
**Ref Parcel #:** R3219AC 04500  
**Taxes:** \$2,784.94  
**Market Value:** \$319,951  
**Assessed Value:** \$188,005  
**Sales Price:** \$0  
**Transfer Date:**



**Legal Owner:** Cole Austin & Katie Hubbard  
**Site Address:** 315 E 5th St Newberg, OR 97132  
**Mailing Address:** 10241 SW Evergreen Ct Wilsonville, OR  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,040      **Lot Acres:** 0.12  
**Year Built:** 1991  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 02801

**APN:** 483988  
**Ref Parcel #:** R3219AC 02801  
**Taxes:** \$2,478.36  
**Market Value:** \$276,908  
**Assessed Value:** \$167,309  
**Sales Price:** \$380,000  
**Transfer Date:** 10/22/2021



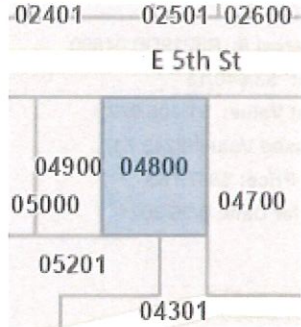
**Legal Owner:** Timothy & Laurel Mueller  
**Site Address:** 113 E 7th St Newberg, OR 97132  
**Mailing Address:** Po Box 157 Carlton, OR 97111  
**Bedrooms:** 4  
**Bathrooms:** 2  
**Building SqFt:** 1,566      **Lot Acres:** 0.19  
**Year Built:** 1970  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR D QQTR B TAXLOT 00680

**APN:** 54808  
**Ref Parcel #:** R3219DB 00680  
**Taxes:** \$2,709.46  
**Market Value:** \$353,044  
**Assessed Value:** \$182,910  
**Sales Price:** \$0  
**Transfer Date:** 10/29/2004



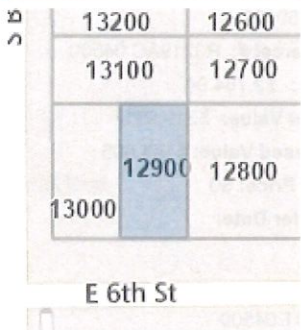
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



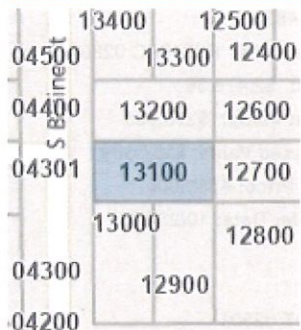
**Legal Owner:** Greg Deutelbaum & Vanesa Orourke  
**Site Address:** 300 E 5th St Newberg, OR 97132  
**Mailing Address:** 300 E 5th St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2.5  
**Building SqFt:** 1,359      **Lot Acres:** 0.19  
**Year Built:** 1963  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** SEE METES & BOUNDS

**APN:** 50447  
**Ref Parcel #:** R3219AC 04800  
**Taxes:** \$3,006.47  
**Market Value:** \$331,601  
**Assessed Value:** \$202,960  
**Sales Price:** \$408,000  
**Transfer Date:** 9/27/2021



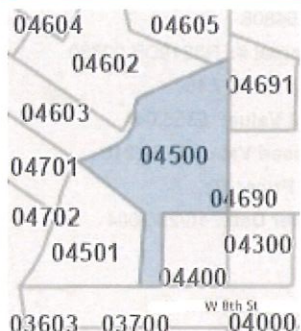
**Legal Owner:** Christopher & Yolanda Jones  
**Site Address:** 405 E 6th St Newberg, OR 97132  
**Mailing Address:** 405 E 6th St Newberg, OR 97132  
**Bedrooms:** 2  
**Bathrooms:** 1  
**Building SqFt:** 660      **Lot Acres:** 0.12  
**Year Built:** 1946  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR D TAXLOT 12900

**APN:** 50303  
**Ref Parcel #:** R3219AD 12900  
**Taxes:** \$1,452.34  
**Market Value:** \$246,101  
**Assessed Value:** \$98,044  
**Sales Price:** \$0  
**Transfer Date:**



**Legal Owner:** Nathaniel Zahm & Jessica Matchett  
**Site Address:** 512 S Blaine St Newberg, OR 97132  
**Mailing Address:** 512 S Blaine St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 1  
**Building SqFt:** 1,000      **Lot Acres:** 0.12  
**Year Built:** 1989  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR D TAXLOT 13100

**APN:** 50321  
**Ref Parcel #:** R3219AD 13100  
**Taxes:** \$2,358.32  
**Market Value:** \$273,236  
**Assessed Value:** \$159,205  
**Sales Price:** \$245,000  
**Transfer Date:** 6/10/2016



**Legal Owner:** Thomas Birmingham Iii  
**Site Address:** 115 W 8th St Newberg, OR 97132  
**Mailing Address:** 117 W 8th St Newberg, OR 97132  
**Bedrooms:** 4  
**Bathrooms:** 3  
**Building SqFt:** 2,176      **Lot Acres:** 0.80  
**Year Built:** 1976  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** SEE METES & BOUNDS

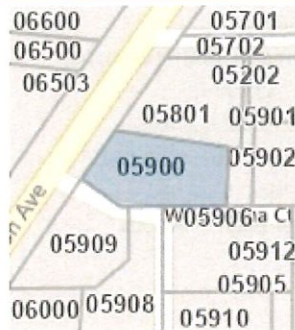
**APN:** 56361  
**Ref Parcel #:** R3219DB 04500  
**Taxes:** \$3,598.43  
**Market Value:** \$566,246  
**Assessed Value:** \$242,922  
**Sales Price:** \$0  
**Transfer Date:**





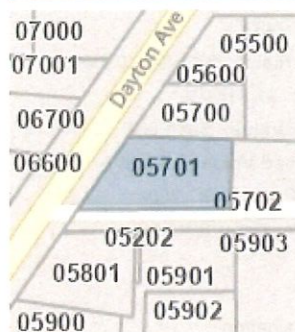
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



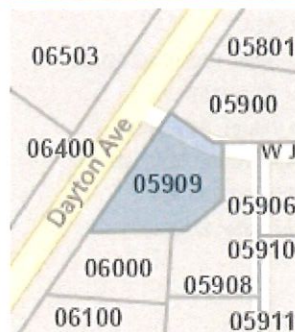
**Legal Owner:** Michael & Chennel Evans  
**Site Address:** 131 W Johanna Ct Newberg, OR 97132  
**Mailing Address:** 131 W Johanna Ct Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,732      **Lot Acres:** 0.19  
**Year Built:** 1997  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** LOT 1 IN CRISMAN ESTATES

**APN:** 50704  
**Ref Parcel #:** R3219AC 05900  
**Taxes:** \$3,966.09  
**Market Value:** \$382,464  
**Assessed Value:** \$267,742  
**Sales Price:** \$362,000  
**Transfer Date:** 9/11/2019



**Legal Owner:** Jimmy & Kathie Morton  
**Site Address:** 512 S Dayton Ave Newberg, OR 97132  
**Mailing Address:** 25153 NE Butteville Rd Aurora, OR 97002  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,541      **Lot Acres:** 0.22  
**Year Built:** 1992  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 05701

**APN:** 50651  
**Ref Parcel #:** R3219AC 05701  
**Taxes:** \$3,684.52  
**Market Value:** \$387,100  
**Assessed Value:** \$248,734  
**Sales Price:** \$195,900  
**Transfer Date:** 1/31/2005



**Legal Owner:** Timothy & Laurel Mueller  
**Site Address:** 603 S Dayton Ave Newberg, OR 97132  
**Mailing Address:** Po Box 157 Carlton, OR 97111  
**Bedrooms:** 4  
**Bathrooms:** 2  
**Building SqFt:** 1,704      **Lot Acres:** 0.17  
**Year Built:** 1969  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 05909 LOT 10

**APN:** 505555  
**Ref Parcel #:** R3219AC 05909  
**Taxes:** \$2,561.47  
**Market Value:** \$336,672  
**Assessed Value:** \$172,919  
**Sales Price:** \$0  
**Transfer Date:**



**Legal Owner:** Rebecca Simpson & William Donovan  
**Site Address:** 531 S Dayton Ave Newberg, OR 97132  
**Mailing Address:** 531 S Dayton Ave Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 2,432      **Lot Acres:** 0.30  
**Year Built:** 1999  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 06503 LOT 1 BLOCK 23

**APN:** 377620  
**Ref Parcel #:** R3219AC 06503  
**Taxes:** \$2,999.13  
**Market Value:** \$351,782  
**Assessed Value:** \$202,465  
**Sales Price:** \$0  
**Transfer Date:**

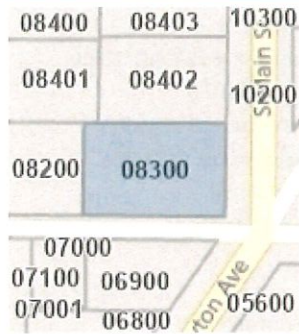






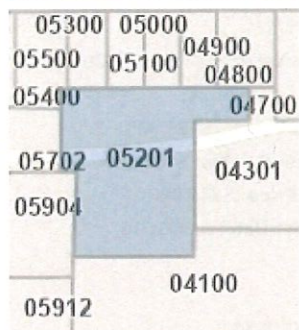
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



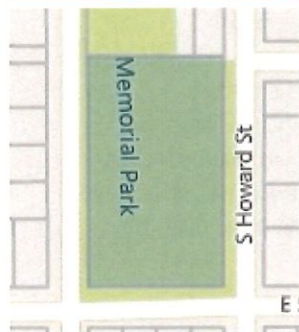
**Legal Owner:** Keith & Evelyn Barnes  
**Site Address:** 429 S Main St Newberg, OR 97132  
**Mailing Address:** 429 S Main St Newberg, OR 97132  
**Bedrooms:** 4  
**Bathrooms:** 2  
**Building SqFt:** 2,189      **Lot Acres:** 0.27  
**Year Built:** 1904  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 08300

**APN:** 51829  
**Ref Parcel #:** R3219AC 08300  
**Taxes:** \$3,708.40  
**Market Value:** \$475,049  
**Assessed Value:** \$250,346  
**Sales Price:** \$0  
**Transfer Date:**



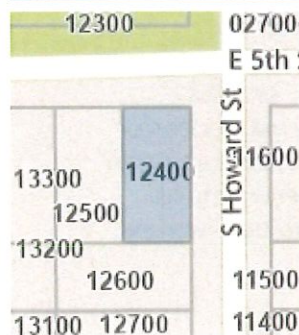
**Legal Owner:** Schmidt Charles M & Fonda R (Trustees Of)  
**Site Address:** Schmidt Charles M  
**Mailing Address:** 514 S Dayton Ave Newberg, OR 97132  
**Bedrooms:** 0  
**Bathrooms:** 0  
**Building SqFt:** 0      **Lot Acres:** 1.00  
**Year Built:** 0  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 05201

**APN:** 50562  
**Ref Parcel #:** R3219AC 05201  
**Taxes:** \$4,704.79  
**Market Value:** \$540,488  
**Assessed Value:** \$317,610  
**Sales Price:** \$0  
**Transfer Date:**



**Legal Owner:** Newberg City Of  
**Site Address:** 411 S Howard St Newberg, OR 97132  
**Mailing Address:** 535 NE 5th St McMinnville, OR 97128  
**Bedrooms:** 0  
**Bathrooms:** 0  
**Building SqFt:** 95      **Lot Acres:** 1.56  
**Year Built:** 1900  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR D TAXLOT 12300 BLOCK 3

**APN:** 49361  
**Ref Parcel #:** R3219AD 12300  
**Taxes:** \$0.00  
**Market Value:** \$667,563  
**Assessed Value:** \$190,178  
**Sales Price:** \$0  
**Transfer Date:**



**Legal Owner:** James & Gail Bonsey  
**Site Address:** 501 S Howard St Newberg, OR 97132  
**Mailing Address:** 501 S Howard St Newberg, OR 97132  
**Bedrooms:** 2  
**Bathrooms:** 2.5  
**Building SqFt:** 1,118      **Lot Acres:** 0.12  
**Year Built:** 1954  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR D TAXLOT 12400

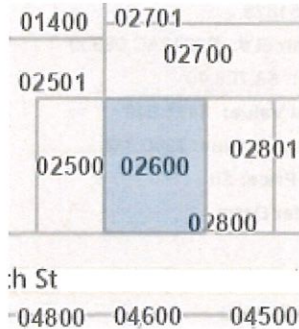
**APN:** 50027  
**Ref Parcel #:** R3219AD 12400  
**Taxes:** \$2,230.13  
**Market Value:** \$258,536  
**Assessed Value:** \$150,551  
**Sales Price:** \$0  
**Transfer Date:**





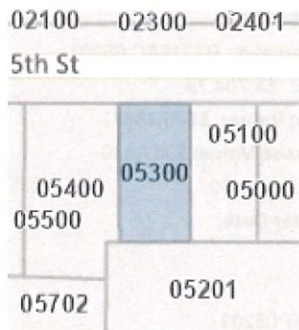
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



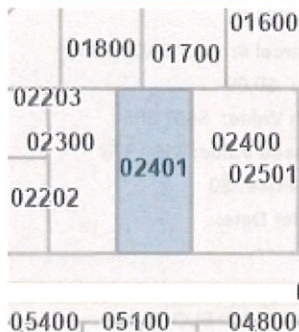
**Legal Owner:** Sergiy Barsukov  
**Site Address:** 307 E 5th St Newberg, OR 97132  
**Mailing Address:** 307 E 5th St Newberg, OR 97132  
**Bedrooms:** 4  
**Bathrooms:** 1  
**Building SqFt:** 2,336      **Lot Acres:** 0.17  
**Year Built:** 1949  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 02600

**APN:** 49922  
**Ref Parcel #:** R3219AC 02600  
**Taxes:** \$2,538.55  
**Market Value:** \$315,450  
**Assessed Value:** \$171,372  
**Sales Price:** \$0  
**Transfer Date:**



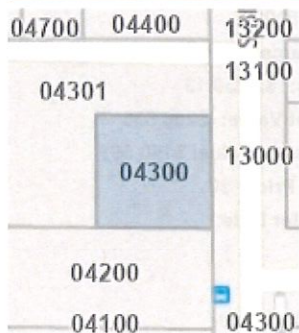
**Legal Owner:** Joslyn & Keith Keating  
**Site Address:** 116 E 5th St Newberg, OR 97132  
**Mailing Address:** 116 E 5th St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 1  
**Building SqFt:** 1,348      **Lot Acres:** 0.13  
**Year Built:** 1901  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 05300

**APN:** 50571  
**Ref Parcel #:** R3219AC 05300  
**Taxes:** \$2,374.24  
**Market Value:** \$260,338  
**Assessed Value:** \$160,280  
**Sales Price:** \$274,900  
**Transfer Date:** 8/30/2016



**Legal Owner:** Richard & Jessica Hughes  
**Site Address:** 209 E 5th St Newberg, OR 97132  
**Mailing Address:** 209 E 5th St Newberg, OR 97132  
**Bedrooms:** 4  
**Bathrooms:** 3.5  
**Building SqFt:** 2,500      **Lot Acres:** 0.22  
**Year Built:** 1964  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** SEE METES & BOUNDS

**APN:** 50287  
**Ref Parcel #:** R3219AC 02401  
**Taxes:** \$3,877.86  
**Market Value:** \$393,196  
**Assessed Value:** \$261,786  
**Sales Price:** \$432,500  
**Transfer Date:** 7/29/2019



**Legal Owner:** Patricia Doxtater  
**Site Address:** 521 S Blaine St Newberg, OR 97132  
**Mailing Address:** 521 S Blaine St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,272      **Lot Acres:** 0.15  
**Year Built:** 1979  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 04300

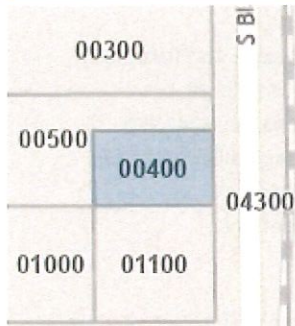
**APN:** 50376  
**Ref Parcel #:** R3219AC 04300  
**Taxes:** \$3,042.63  
**Market Value:** \$332,990  
**Assessed Value:** \$205,401  
**Sales Price:** \$210,000  
**Transfer Date:** 9/30/2015





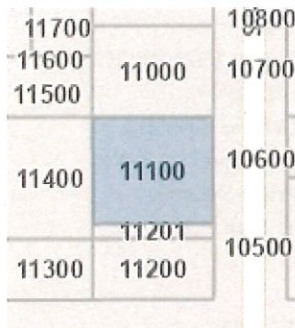
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



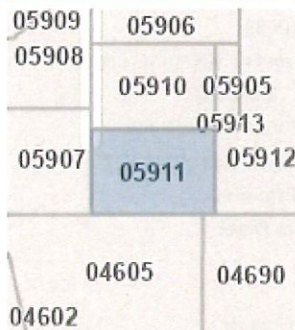
**Legal Owner:** Rigoberto & Lucia Garcia  
**Site Address:** 705 S Blaine St Newberg, OR 97132  
**Mailing Address:** 705 S Blaine St Newberg, OR 97132  
**Bedrooms:** 2  
**Bathrooms:** 1  
**Building SqFt:** 1,120      **Lot Acres:** 0.14  
**Year Built:** 1954  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR D QQTR B TAXLOT 00400

**APN:** 54755  
**Ref Parcel #:** R3219DB 00400  
**Taxes:** \$2,321.81  
**Market Value:** \$280,876  
**Assessed Value:** \$156,740  
**Sales Price:** \$0  
**Transfer Date:**



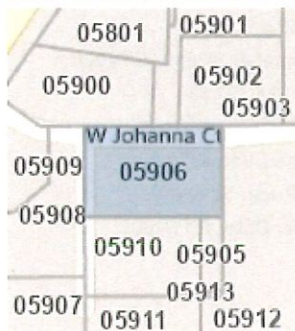
**Legal Owner:** Daniel & Sarah Taylor  
**Site Address:** 515 S School St Newberg, OR 97132  
**Mailing Address:** 515 S School St Newberg, OR 97132  
**Bedrooms:** 4  
**Bathrooms:** 2  
**Building SqFt:** 2,820      **Lot Acres:** 0.20  
**Year Built:** 1909  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR D TAXLOT 11100 LOT 4 BLOCK 4

**APN:** 53952  
**Ref Parcel #:** R3219AD 11100  
**Taxes:** \$2,585.27  
**Market Value:** \$403,983  
**Assessed Value:** \$174,526  
**Sales Price:** \$528,000  
**Transfer Date:** 10/22/2021



**Legal Owner:** Harry Banister & Jennifer Dittmer  
**Site Address:** 128 W Johanna Ct Newberg, OR 97132  
**Mailing Address:** 128 W Johanna Ct Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,480      **Lot Acres:** 0.17  
**Year Built:** 2013  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 05911

**APN:** 508090  
**Ref Parcel #:** R3219AC 05911  
**Taxes:** \$3,079.82  
**Market Value:** \$364,014  
**Assessed Value:** \$207,912  
**Sales Price:** \$100,000  
**Transfer Date:** 4/26/2013



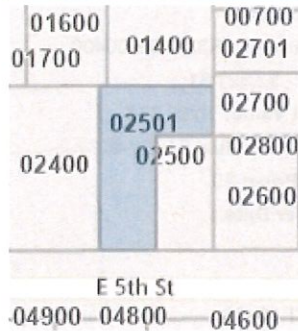
**Legal Owner:** Paul & Emily Bachand  
**Site Address:** 120 W Johanna Ct Newberg, OR 97132  
**Mailing Address:** 120 W Johanna Ct Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,732      **Lot Acres:** 0.24  
**Year Built:** 2005  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 05906

**APN:** 505546  
**Ref Parcel #:** R3219AC 05906  
**Taxes:** \$3,609.26  
**Market Value:** \$416,477  
**Assessed Value:** \$243,653  
**Sales Price:** \$270,000  
**Transfer Date:** 3/7/2007



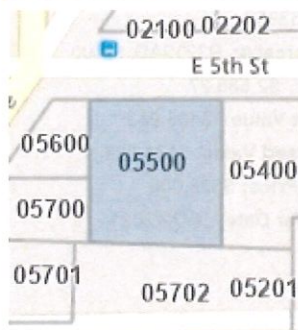
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



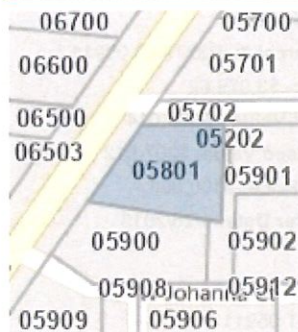
**Legal Owner:** Vivian Archibald  
**Site Address:** 215 E 5th St Newberg, OR 97132  
**Mailing Address:** 215 E 5th St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 2,160      **Lot Acres:** 0.22  
**Year Built:** 1974  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 02501

**APN:** 49913  
**Ref Parcel #:** R3219AC 02501  
**Taxes:** \$3,332.78  
**Market Value:** \$347,270  
**Assessed Value:** \$224,989  
**Sales Price:** \$0  
**Transfer Date:**



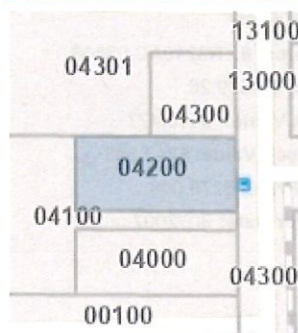
**Legal Owner:** Kenneth & Rhonda Marron  
**Site Address:** 102 E 5th St Newberg, OR 97132  
**Mailing Address:** 102 E 5th St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 2,186      **Lot Acres:** 0.34  
**Year Built:** 1972  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 05500

**APN:** 50606  
**Ref Parcel #:** R3219AC 05500  
**Taxes:** \$3,981.67  
**Market Value:** \$413,313  
**Assessed Value:** \$268,794  
**Sales Price:** \$333,500  
**Transfer Date:** 5/24/2016



**Legal Owner:** Hans Jensen  
**Site Address:** 516 S Dayton Ave Newberg, OR 97132  
**Mailing Address:** 22330 NE Highway 240 Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,912      **Lot Acres:** 0.18  
**Year Built:** 1946  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 05801

**APN:** 50688  
**Ref Parcel #:** R3219AC 05801  
**Taxes:** \$3,683.08  
**Market Value:** \$354,446  
**Assessed Value:** \$248,637  
**Sales Price:** \$0  
**Transfer Date:**



**Legal Owner:** Danny & Jo Russell  
**Site Address:** 527 S Blaine St Newberg, OR 97132  
**Mailing Address:** 527 S Blaine St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 3  
**Building SqFt:** 2,382      **Lot Acres:** 0.31  
**Year Built:** 1935  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** SEE METES & BOUNDS

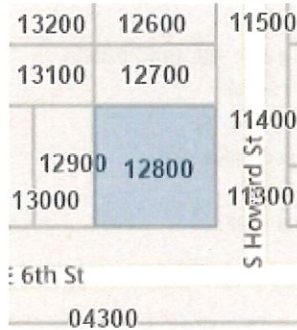
**APN:** 50367  
**Ref Parcel #:** R3219AC 04200  
**Taxes:** \$3,791.81  
**Market Value:** \$407,292  
**Assessed Value:** \$255,977  
**Sales Price:** \$299,000  
**Transfer Date:** 8/11/2005





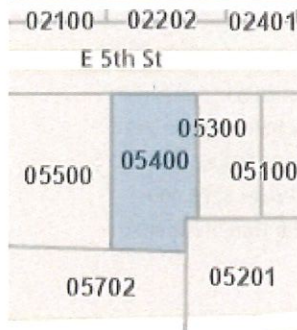
**First American Title™**

Customer Service Department  
Phone: 503.219.8746(TRIO)  
Email: cs.oregon@firstam.com  
Report Generated: 11/17/2021



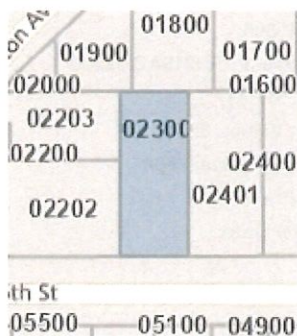
**Legal Owner:** Jerry & Linda Havener  
**Site Address:** 521 S Howard St Newberg, OR 97132  
**Mailing Address:** 521 S Howard St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 1  
**Building SqFt:** 1,728      **Lot Acres:** 0.23  
**Year Built:** 1912  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR D TAXLOT 12800

**APN:** 50296  
**Ref Parcel #:** R3219AD 12800  
**Taxes:** \$2,926.91  
**Market Value:** \$370,633  
**Assessed Value:** \$224,817  
**Sales Price:** \$0  
**Transfer Date:**



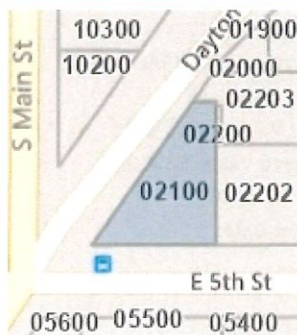
**Legal Owner:** Schmidt Charles M & Fonda R Schmidt Charles  
**Site Address:** 112 E 5th St Newberg, OR 97132  
**Mailing Address:** 112 E 5th St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 1  
**Building SqFt:** 2,664      **Lot Acres:** 0.21  
**Year Built:** 1920  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** SEE METES & BOUNDS

**APN:** 50599  
**Ref Parcel #:** R3219AC 05400  
**Taxes:** \$2,291.47  
**Market Value:** \$308,433  
**Assessed Value:** \$154,692  
**Sales Price:** \$0  
**Transfer Date:**



**Legal Owner:** Norven Hilger  
**Site Address:** 201 E 5th St Newberg, OR 97132  
**Mailing Address:** 201 E 5th St Newberg, OR 97132  
**Bedrooms:** 3  
**Bathrooms:** 2  
**Building SqFt:** 1,615      **Lot Acres:** 0.20  
**Year Built:** 1998  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 02300

**APN:** 49815  
**Ref Parcel #:** R3219AC 02300  
**Taxes:** \$2,473.11  
**Market Value:** \$301,142  
**Assessed Value:** \$166,954  
**Sales Price:** \$88,413  
**Transfer Date:** 3/10/2014



**Legal Owner:** Ronda Arbogast & Frank Measel  
**Site Address:** 107 E 5th St Newberg, OR 97132  
**Mailing Address:** 107 E 5th St Newberg, OR 97132  
**Bedrooms:** 2  
**Bathrooms:** 1  
**Building SqFt:** 1,120      **Lot Acres:** 0.17  
**Year Built:** 1974  
**School District:** Newberg School District 29j  
**Neighborhood:**  
**Legal:** TOWNSHIP 3S RANGE 2W SECTION 19 QTR A QQTR C TAXLOT 02100

**APN:** 49780  
**Ref Parcel #:** R3219AC 02100  
**Taxes:** \$2,461.00  
**Market Value:** \$293,940  
**Assessed Value:** \$166,137  
**Sales Price:** \$0  
**Transfer Date:**







**First American**

**First American Title Insurance Company**

775 NE Evans Street  
McMinnville, OR 97128  
Phn - (503)376-7363  
Fax - (866)800-7294

**PUBLIC RECORD REPORT  
FOR NEW SUBDIVISION OR LAND PARTITION**

THIS REPORT IS ISSUED BY THE ABOVE-NAMED COMPANY ("THE COMPANY") FOR THE EXCLUSIVE USE OF:

Refinance-Borrower  
4211 Chad Drive  
Lake Oswego, OR 97034  
Phone:  
Fax:

Date Prepared : November 15, 2021  
Effective Date : 8:00 A.M on November 10, 2021  
Order No. : 7000-3742457  
Subdivision : **601 S Blaine**

The information contained in this report is furnished by First American Title Insurance Company (the "Company") as an information service based on the records and indices maintained by the Company for the county identified below. This report is not title insurance, is not a preliminary title report for title insurance, and is not a commitment for title insurance. No examination has been made of the Company's records, other than as specifically set forth in this report. Liability for any loss arising from errors and/or omissions is limited to the lesser of the fee paid or the actual loss to the Customer, and the Company will have no greater liability by reason of this report. This report is subject to the Definitions, Conditions and Stipulations contained in it.

**REPORT**

- A. The Land referred to in this report is located in the County of Yamhill, State of Oregon, and is described as follows:

As fully set forth on Exhibit "A" attached hereto and by this reference made a part hereof.

- B. As of the Effective Date, the tax account and map references pertinent to the Land are as follows:

As fully set forth on Exhibit "A" attached hereto and by this reference made a part hereof.

- C. As of the Effective Date and according to the Public Records, we find title to the land apparently vested in:

As fully set forth on Exhibit "B" attached hereto and by this reference made a part hereof

- D. As of the Effective Date and according to the Public Records, the Land is subject to the following liens and encumbrances, which are not necessarily shown in the order of priority:

As fully set forth on Exhibit "C" attached hereto and by this reference made a part hereof.

**EXHIBIT "A"**  
**(Land Description Map Tax and Account)**

Part of the Joseph B. Rogers Donation Land Claim No. 55 in Section 19, Township 3 South, Range 2 West of the Willamette Meridian in Yamhill County, Oregon, described as follows:

Beginning at a point on the West margin of Blaine Street, 300 feet South of the intersection of the South line of Fifth Street with the West line of Blaine Street in the City of Newberg; thence West 120.0 feet to the True Point of Beginning of the tract herein described; thence continuing West 224.0 feet; thence South 40.0 feet; thence West 166 feet; thence South 129.0 feet; thence East 390.0 feet; thence North 69.0 feet; thence East 120.0 feet to the West margin of Blaine Street; thence North along the West margin of said Blaine Street, 20.0 feet; thence West 120.0 feet; thence North 80 feet to the True Point of Beginning.

SAVE AND EXCEPTING THEREFROM that portion conveyed to Terry Clevenger and Kathy Clevenger, husband and wife, by Deed recorded October 5, 1990 in Film Volume 248, Page 736, Deed and Mortgage Records.

FURTHER SAVE AND EXCEPTING THEREFROM that portion conveyed to Thomas R. Norwood and Diane K. Norwood, husband and wife, by Deed recorded February 23, 1993 in Film Volume 282, Page 1743, Deed and Mortgage Records.

NOTE: This legal description was created prior to January 1, 2008.

Map No.: R3219AC 04100  
Tax Account No.: 50358



**EXHIBIT "B"**  
**(Vesting)**

Zone Holdings, LLC, a Washington limited liability company

**EXHIBIT "C"**  
**(Liens and Encumbrances)**

1. City liens, if any, of the City of Newberg.
2. The rights of the public in and to that portion of the premises herein described lying within the limits of streets, roads and highways.
3. Restrictive Covenants regarding Underground utilities, imposed by , including terms and provisions thereof.  
Recorded: November 27, 1968 as Film Volume 73, Page 784
4. Distribution Line Easement, including terms and provisions contained therein:  
Recording Information: November 27, 1968 as Film Volume 73, Page 786  
In Favor of: Portland General Electric Company, an Oregon Corporation  
For: Electric Power lines and appurtenances  
Affects: References is hereby made to said document for full particulars
5. Easement, including terms and provisions contained therein:  
Recording Information: October 5, 1990 as Film Volume 248, Page 733  
In Favor of: Terry Clevenger and Kathy Clevenger  
For: Access to and from Blaine Street  
Affects: References is hereby made to said document for full particulars
6. Storm Drainage and Ingress-Egress Easement, including terms and provisions contained therein:  
Recording Information: June 14, 2016 as Instrument No. 201608582, Deed and Mortgage Records  
In Favor of: City of Newberg  
For: Storm drainage and access  
Affects: References is hereby made to said document for full particulars
7. Deed of Trust and the terms and conditions thereof.  
Grantor/Trustor: Zone Holdings, LLC, a Washington limited liability company  
Grantee/Beneficiary: Mortgage Electronic Registration Systems, Inc., acting solely as nominee for HomeExpress Mortgage Corp.  
Trustee: First American  
Amount: \$412,500.00  
Dated: June 15, 2021  
Recorded: June 17, 2021  
Recording Information: Instrument No. 2021-12411, Deed and Mortgage Records
8. Unrecorded leases or periodic tenancies, if any.
9. Any conveyance or encumbrance by Zone Holdings, LLC should be executed pursuant to their Operating Agreement , a copy of which should be submitted to this office for inspection.

**NOTE: Taxes for the year 2021-2022 PAID IN FULL**

Tax Amount:	\$4,181.75
Map No.:	R3219AC 04100
Property ID:	50358
Tax Code No.:	29.0



## DEFINITIONS, CONDITIONS AND STIPULATIONS

1. **Definitions.** The following terms have the stated meaning when used in this report:
  - (a) "Customer": The person or persons named or shown as the addressee of this report.
  - (b) "Effective Date": The effective date stated in this report.
  - (c) "Land": The land specifically described in this report and improvements affixed thereto which by law constitute real property.
  - (d) "Public Records": Those records which by the laws of the state of Oregon impart constructive notice of matters relating to the Land.
  
2. **Liability of the Company.**
  - (a) THIS REPORT IS NOT AN INSURED PRODUCT OR SERVICE OR A REPRESENTATION OF THE CONDITION OF TITLE TO REAL PROPERTY. IT IS NOT AN ABSTRACT, LEGAL OPINION, OPINION OF TITLE, TITLE INSURANCE COMMITMENT OR PRELIMINARY REPORT, OR ANY FORM OF TITLE INSURANCE OR GUARANTY. THIS REPORT IS ISSUED EXCLUSIVELY FOR THE BENEFIT OF THE APPLICANT THEREFOR, AND MAY NOT BE USED OR RELIED UPON BY ANY OTHER PERSON. THIS REPORT MAY NOT BE REPRODUCED IN ANY MANNER WITHOUT FIRST AMERICAN'S PRIOR WRITTEN CONSENT. FIRST AMERICAN DOES NOT REPRESENT OR WARRANT THAT THE INFORMATION HEREIN IS COMPLETE OR FREE FROM ERROR, AND THE INFORMATION HEREIN IS PROVIDED WITHOUT ANY WARRANTIES OF ANY KIND, AS-IS, AND WITH ALL FAULTS. AS A MATERIAL PART OF THE CONSIDERATION GIVEN IN EXCHANGE FOR THE ISSUANCE OF THIS REPORT, RECIPIENT AGREES THAT FIRST AMERICAN'S SOLE LIABILITY FOR ANY LOSS OR DAMAGE CAUSED BY AN ERROR OR OMISSION DUE TO INACCURATE INFORMATION OR NEGLIGENCE IN PREPARING THIS REPORT SHALL BE LIMITED TO THE FEE CHARGED FOR THE REPORT. RECIPIENT ACCEPTS THIS REPORT WITH THIS LIMITATION AND AGREES THAT FIRST AMERICAN WOULD NOT HAVE ISSUED THIS REPORT BUT FOR THE LIMITATION OF LIABILITY DESCRIBED ABOVE. FIRST AMERICAN MAKES NO REPRESENTATION OR WARRANTY AS TO THE LEGALITY OR PROPRIETY OF RECIPIENT'S USE OF THE INFORMATION HEREIN.
  - (b) No costs (including, without limitation attorney fees and other expenses) of defense, or prosecution of any action, is afforded to the Customer.
  - (c) In any event, the Company assumes no liability for loss or damage by reason of the following:
    - (1) Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records.
    - (2) Any facts, rights, interests or claims which are not shown by the Public Records but which could be ascertained by an inspection of the land or by making inquiry of persons in possession thereof.
    - (3) Easements, liens or encumbrances, or claims thereof, which are not shown by the Public Records.
    - (4) Discrepancies, encroachments, shortage in area, conflicts in boundary lines or any other facts which a survey would disclose.
    - (5) (i) Unpatented mining claims; (ii) reservations or exceptions in patents or in Acts authorizing the issuance thereof, (iii) water rights or claims or title to water.
    - (6) Any right, title, interest, estate or easement in land beyond the lines of the area specifically described or referred to in this report, or in abutting streets, roads, avenues, alleys, lanes, ways or waterways.
    - (7) Any law, ordinance or governmental regulation (including but not limited to building and zoning laws, ordinances or regulations) restricting, regulating, prohibiting or relating to (i) the occupancy, use or enjoyment on the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the Public Records at the effective date hereof.
    - (8) Any governmental police power not excluded by 2(d)(7) above, except to the extent that notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the Public Records at the effective date hereof.
    - (9) Defects, liens, encumbrances, adverse claims or other matters created, suffered, assumed, agreed to or actually known by the Customer.
  
3. **Charge.** The charge for this report does not include supplemental reports, updates or other additional services of the Company.



***First American***

First American Title Insurance Company  
775 NE Evans Street  
McMinnville, OR 97128

### **Illegal Restrictive Covenants**

Please be advised that any provision contained in this document, or in a document that is attached, linked, or referenced in this document, that under applicable law illegally discriminates against a class of individuals based upon personal characteristics such as race, color, religion, sex, sexual orientation, gender identity, familial status, disability, national origin, or any other legally protected class, is illegal and unenforceable by law.

---

**H B H**  
CONSULTING  
ENGINEERS

501 E First Street  
Newberg, Oregon 97132  
503/554-9553 · Fax 503/537-9554

---

Date: **11/8/2021**

Project Number: **2020-018**

To: **To Whom It May Concern**

From: **Andrey Chernishov, PE**

RE: **Blaine Street Development: Written Criteria Response**

---

**Overview**

Applicant: Casey and Shannon Bernard  
Owner: Casey and Shannon Bernard  
Prepared By: Andrey Chernishov, PE  
HBH Consulting Engineers, Inc.  
Property Description: Tax Lot R3219AC4100  
601 S Blaine Street  
Newberg, Oregon 97312  
Zoning: R-3  
Proposed Partition: Parcel 1 = 37,780.28 SF  
Parcel 2 = 9,490.53 SF  
Parcel 3 = 8,810.74 SF

**Project Summary**

This project is located at 601 S Blaine Street. The existing development onsite is a single-family residential structure.

The development proposal is to partition the lot into three parcels: one for the existing house and two new lots for four duplexes.

Water and sanitary sewer can be provided from the existing facilities in Blaine Street. Stormwater for the impervious area added by the development is handled by a regional extended dry basin facility located on Parcel 1.

**Written Criteria Response**

1. *The land division application shall conform to the requirements of this chapter;*

**Response:** Per NMC 15.235.030, the requested partition may be processed as a Type II application as it is fully within the city limits, does not contain any Goal 5 Resources, complies with street connectivity standards, meets 80% or more of the net density for an R3 zone, and the applicant is not requesting a referral to the Planning Commission.

2. *All proposed lots, blocks, and proposed land uses shall conform to the applicable provisions of NMC Division 15.400, Development Standards:*

15.405.010 *Lot area – Lot areas per dwelling unit.*

A. *In the following districts, each lot or development site shall have an area as shown below except as otherwise permitted by this code:*

2. *In the R-2, R-3, and RP districts, each lot or development site shall have a minimum area of 3,000 square feet or as may be established by a subdistrict.*



**Response:** The lot will be partitioned into three lots:

- Parcel 1 = 37,780.28 SF
- Parcel 2 = 9,490.53 SF
- Parcel 3 = 8,810.74 SF

All parcels greater than 3,000 SF so the criteria are met.

**B. Lot or Development Site Area per Dwelling Unit.**

3. In the R-3 district, there shall be a minimum of 1,500 square feet of lot or development site area per dwelling unit. Lots or development sites in excess of 15,000 square feet used for multiple single-family, duplex or multifamily dwellings shall be developed at a minimum of one dwelling per 2,500 square feet lot area.

**Response:** The dwellings will be two sizes:

- Unit A= 1,500 SF
- Unit B= 2,000 SF

All dwellings greater than 1,500 SF so the criteria are met.

**15.405.030 Lot dimensions and frontage.**

**D. Frontage.**

1. No lot or development site shall have less than the following lot frontage standards:
  - a. Each lot or development site shall have either frontage on a public street for a distance of at least 25 feet or have access to a public street through an easement that is at least 25 feet wide. No new private streets, as defined in NMC 15.05.030, shall be created to provide frontage or access except as allowed by NMC 15.240.020(L)(2).
  - b. Each lot in R-2 zone shall have a minimum width of 25 feet at the front building line and R-3 zone shall have a minimum width of 30 feet at the front building line.

**Response:** These criteria are met, see table below.

	Street Frontage	Width at Building Line
<b>Minimum Required</b>	25'	25'
Parcel 1	25' (Via 5' Easement)	134.86'
Parcel 2	25' (Via 5' & 20' Easement)	119.27'
Parcel 3	25' (Via 5' & 20' Easement)	123.55'

**15.405.040 Lot coverage and parking coverage requirements.**

**B. Residential uses in residential zones shall meet the following maximum lot coverage and parking coverage standards.**

1. Maximum Lot Coverage.
  - c. AR and R-3: 50 percent.
2. Maximum Parking Coverage. R-1, R-2, R-3, and RP: 30 percent.
3. Combined Maximum Lot and Parking Coverage..
  - b. R-3: 70 percent.

**Response:** These criteria are met, see table below.

Parcel	Lot Area	Lot Coverage (50% Max)	Parking Coverage (30% Max)	Combined Coverage (70% Max)
1	37,780.28 SF	1,560.69 SF = 4%	2,306.76 SF = 6%	3,867.45 SF = 10%
2	9,490.53 SF	3,304 SF= 35%	2,640 SF = 28%	5,944 SF = 63%
3	8,810.74 SF	2,804 SF = 32%	2,320 SF = 26%	5,124 SF = 58%

Note: Outdoor & indoor garages and driveways area considered parking coverage. Indoor garages subtracted from building coverage.

**15.410.020 Front yard setback.**

**A. Residential**

2. R-3 and RP districts shall have a front yard of not less than 12 feet.

3. The entrance to a garage or carport, whether or not attached to a dwelling, shall be set back at least 20 feet from the nearest property line of the street to which access will be provided. However, the foregoing setback requirement shall not apply where the garage or carport will be provided with access to an alley only.

**Response:** These criteria are met, see table below.

Parcel	Front Yard Setback	Garage Setback
Min	12'	20'
1	58.9'	28.3'
2	26'	20'
3	26'	20'

15.410.030 Interior yard setback.

**A. Residential.**

1. All lots or development sites in the AR, R-1, R-2 and R-3 districts shall have interior yards of not less than five feet, except that where a utility easement is recorded adjacent to a side lot line, there shall be a side yard no less than the width of the easement.

**Response:** These criteria are met, see table below.

Parcel	Interior Yard Setback
Min	5'
1	16.47'
2	5'
3	5'

15.410.060 Vision clearance setback.

B. At the intersection of a private drive and a street, a triangle formed by the intersection of the curb lines, each leg of the vision clearance triangle shall be a minimum of 25 feet in length.

C. Vision clearance triangles shall be kept free of all visual obstructions from two and one-half feet to nine feet above curb line. When curbs are absent, the edge of asphalt or future curb location shall be used as a guide, whichever provides the greatest amount of vision clearance.

**Response:** There are no existing or proposed improvements along the frontage that will obscure sight distance. The criteria are met.

15.440.030 Parking spaces required.

Dwelling, single-family or two-family: 2 for each dwelling unit on a single lot

**Response:** These criteria are met, see table below.

Parcel	Dwelling Units	Parking Stalls
Min	#	#
1	1	4
2	4	12
3	4	12

3. Access to individual lots, and public improvements necessary to serve the development, including but not limited to water, wastewater, stormwater, and streets, shall conform to NMC Division 15.500, Public Improvement Standards;

15.505.030 Street standards

**G. Street Width and Design Standards.**

7. Sidewalks. Sidewalks shall be provided on both sides of all public streets. Minimum width is five feet.

**Response:** Sidewalk improvements in the ROW will be 5' in width and to city standards and specifications.

*T. Street Trees. Street trees shall be provided for all projects subject to Type II design review, partition, or subdivision. Street trees shall be installed in accordance with the provisions of NMC 15.420.010(B)(4).*

**Response:** Street trees cannot be planted along the 25' length of Blaine Street frontage as the frontage will be paved driveway as required by city standards. The criteria is met.

*U. Street Lights. All developments shall include underground electric service, light standards, wiring and lamps for streetlights according to the specifications and standards of the Newberg public works design and construction standards. The developer shall install all such facilities and make the necessary arrangements with the serving electric utility as approved by the city. Upon the city's acceptance of the public improvements associated with the development, the street lighting system, exclusive of utility-owned service lines, shall be and become property of the city unless otherwise designated by the city through agreement with a private utility.*

**Response:** There is currently a pole mounted streetlight at the northwest corner of the lot. If needed, an option A mast arm and LED lamp could be installed on the existing utility pole located at the northeast corner of the property.

#### *15.505.040 Public Utility Standards. Water, Wastewater, Stormwater*

**Response:** Parcel 1 with the existing house is currently serviced by a public water service and septic sanitary system. Stormwater runoff drains from this site to the west into a creek basin that is a tributary of Chehalem Creek.

Parcels 2 and 3 will be served by new water services. Each building on parcels 2 & 3 will be outfitted with a private sewage grinder pump that feeds via a low pressure force main to a manhole at the east end of the property, which from there drains via gravity flow to a public main in Blaine Street. This is due to the fact a shallow public wastewater main in Blaine St is not deep enough to serve all three lots while meeting the city required minimum 2% slope along sewer laterals.

Parcel 1 will be upgraded to process sewage in the same manner as parcels 2 & 3 and the private septic system will be decommissioned as required by Yamhill County.

A regional extended dry basin facility will be added on parcel 1 to manage stormwater runoff from all three parcels as a result of the increased impervious are from construction.

The nearest hydrant is located approximately 232 feet south of the parcel 1's access on the west side of Blaine Street.

At the pre-application meeting with the city, Engineering staff did not report any capacity concerns for the existing public utilities, therefore the improvements of this project do not propose any capacity related issues.

The criteria are met.

*4. The proposed plat name is not already recorded for another subdivision, and satisfies the provisions of ORS Chapter 92;*

**Response:** The partition plat will be assigned a unique number by the County Surveyor at the time of recording. Criteria is met.

*5. The proposed streets, utilities, and stormwater facilities conform to city of Newberg adopted master plans and applicable Newberg public works design and construction standards, and allow for transitions to existing and potential future development on adjacent lands. The preliminary plat shall identify all proposed public improvements and dedications;*



**Response:** Refer to the attached plan demonstrating compliance with master plans, design & construction standards. Criteria is met.

6. *All proposed private common areas and improvements, if any, are identified on the preliminary plat and maintenance of such areas is assured through the appropriate legal instrument;*

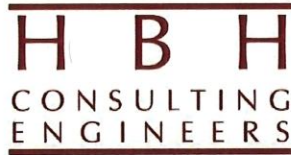
**Response:** Does not apply as no common areas are proposed.

7. *Evidence that any required state and federal permits, as applicable, have been obtained or can reasonably be obtained prior to development; and*

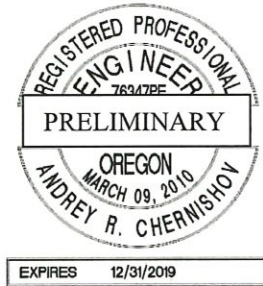
**Response:** No state or federal permits are required for the partition.

8. *Evidence that improvements or conditions required by the city, road authority, Yamhill County, special districts, utilities, and/or other service providers, as applicable to the project, have been or can be met.*

**Response:** Refer to the attached plans and this application which demonstrates compliance.



501 E First Street  
 Newberg, Oregon 97132  
 Ph. 503-554-9553 | Fax 503-537-9554



STORMWATER MEMORANDUM

Date: **October 14, 2020**  
 To: **To Whom It May Concern**  
 From: **Andrey Chernishov, PE**  
 RE: **Blain Street Land Use Approval: HydroCAD Report**

Project Number: **2018-011**

**Overview**

The proposed project is a partition located at 601 S Blain Street, Newberg, OR 97132 and has an area of 1.29 acres. The existing site area is approximately 85% pervious and drains to a tributary of Chehalem Creek which passes through the west side of the property. The proposed project reduces the pervious area of the site to approximately 30%. HydroCAD was used to model stormwater on the site (See Attachments A-C). An extended dry basin stormwater facility will be added to the northwest corner of the property to treat and detain the increased runoff due to the added impervious area on-site. The detention provided by the extended dry basin reduces the post-developed peak runoff to the tributary creek to under the predeveloped conditions.

**Existing Conditions**

Based on a survey, the existing site consists of primarily grass and forest with smaller areas of various impervious surfaces, as shown in Table 1 and Table 2. Per USDA NRCS WSS records, the soils underlying the project site are 75% Aloha silt loam and 25% Woodburn Silt Loam with Hydrological Soil Group (HSG) ratings of C/D & D respectively. The Woodburn silt loam is in the forested area on the west side of the site and is modeled as Subcatchment 2S in the attached HydroCAD models. The runoff from 2S is used in calculating both the predeveloped and post-developed runoff from the site. The remainder of the existing site is modeled as Subcatchment 1S. HSG C/D was modeled in HydroCAD by taking the average curve number (CN) of HSG C & D for each respective area. The site is being modeled with negligible infiltration for preliminary applications. A soil infiltration test will be performed during the engineering phase to fine-tune and finalize the model. A finalized report and design will be submitted along the final construction plans.

Table 1 – Subcatchment 1S – Predevelopment

Surface	CN	Area (SF)	% of Total Area
Grass (HSG C/D)	77	33,508	80%
AC/Concrete/Roofs (HSG C/D)	98	8,544	13%
<i>Total</i>	<i>82 (weighted average)</i>	<i>42,062</i>	<i>100%</i>

Table 2 – Subcatchment 2S – Forest Pre & Post

Surface	CN	Area (SF)	% of Total Area
Forest (HSG D)	83	14,020	100%

These two catchments combined total to approximately 85% pervious area for the site.

**Proposed Conditions**

The proposed improvements will significantly reduce pervious areas and increase impervious areas onsite to approximately 70%. This triggers the need for both quantity and quality treatment. Runoff from the area outside the forest Subcatchment 2S will drain on the site via roof drains, catch basins, piping, and surface flows to an extended dry basin located northwest of the existing home for detention and treatment (see Existing Conditions: Table 2). This developed area is classified as Subcatchment 3S in the HydroCAD models.

The extended dry basin will be 119' long and 3.5' deep in total. This basin will have a 4' wide base with a side slope of 4:1 on the side of the existing house to facilitate easy mowing and a 3:1 side slope on the forest side to blend the basin back into existing grade as shortly as standards will allow. The extended dry basin drains through an orifice flow control ditch inlet structure then outfalls via a 12" pipe to a rip rap pad in the creek basin (See Attachment D). This is intended to control flows up to the 25-year event. A secondary ditch inlet serves to pass the 50-year storm event. A channel designed to pass the 100-year storm event into the creek basin is incorporated into the rim extended dry basin. Runoff from the forest site remains the same as predeveloped conditions and drains directly into the tributary creek. Table 3 below summarizes the conditions for developed site.

Table 3 – Subcatchment 3S – Post-development

Surface	CN	Area (SF)	% of Total Area
Grass (HSG C/D)	77	16,543	39%
AC/Concrete/Roofs (HSG C/D)	98	25,519	61%
Total	90 (weighted average)	42,062	100%

Fill will retain the same soil characteristics as what is currently onsite.

**Design Methodology**

The Santa Barbara Urban Hydrograph (SBUH) Method was used to analyze stormwater runoff for the site. This method utilizes the SCS Type 1A 24-hour design storm. HydroCAD 10 computer software was used in the analysis. The HydroCAD model utilized the 24-hour storm rainfall intensities listed in the City of Newberg Design Standards, shown in Table 5 below:

Table 4 – Storm Event Rainfall Intensities

Recurrence Interval (years)	Total Precipitation Depth (inches)
½ of 2	1.25
2	2.5
10	3.5
25	4.0
50	4.2
100	4.5

For quantity treatment, the City of Newberg requires that stormwater runoff be detained onsite such that post-development runoff rates do not exceed pre-development runoff rates from the site, based on 24-hour storm events including ½ of the 2-year, 2-year, 10-year, and 25-year return storms.

For quality treatment, the City of Newberg requires stormwater quality facilities to be designed for a dry weather storm event totaling 1.0 inches of precipitation falling in 24 hours with an average storm return period of 96 hours using a Type IA rainfall distribution.

**Water Quality Treatment**

The stormwater facility selected, an extended dry basin, is approved by the City of Newberg to treat water quality as well as quantity. The facility collects and holds stormwater runoff, allowing pollutants to filter out and settle into the vegetated bottom of the basin.



A HydroCAD model was ran assuming the infiltration rate as zero to size the water quality orifice (See Attachment A). This yielded a Water Quality Volume (WQV) of 1902 CF for the combined Subcatchments 2S & 3S. Using the Hydraulic Design Criteria from Newberg Standard Detail 461, seen below, yielded a design orifice size of 0.66".

$$D = 24 * \left[ \frac{Q}{C[2gH]^{0.5}} \right]^{0.5} = 24 * \left[ \frac{0.011 \text{ cfs}}{0.62 \left[ 2 \left( 32.2 \frac{\text{ft}}{\text{s}^2} \right) (0.86 \text{ ft}) \right]^{0.5}} \right]^{0.5} = 0.66" \text{ inches}$$

Where:  $Q \text{ (cfs)} = \frac{WQV(\text{cf})}{48 * 60 * 60} = \frac{1,902 \text{ cf}}{48 * 60 * 60} = 0.011 \text{ cfs}$

$$H = \frac{2 * \text{Temporary Detention Height to Center of Orifice}}{3} = \frac{2 * 1.29}{3} = 0.86 \text{ ft}$$

$C = 0.62$ ;  $D = \text{Orifice Diameter (in)}$ ;

**Notes:**

WQV = Runoff Volume of Subcatchments 2S & 3S at the WQ storm event.

Temporary detention height in pond to the center of orifice (from WQ Storm Event) = (Pond 1P Peak Elev: 161.52) – (Permanent Pool IE: 160.23) = 1.29' ft

A 0.7-inch orifice is added to the orifice plate with an IE equal to the top of the extended dry basin's permanent pool depth to accommodate for water quality treatment onsite.

**Water Quantity**

Stormwater quantity treatment is provided by the extended dry basin. The extended dry basin was selected because a LIDA facility/Regional facility is the highest option in the City of Newberg water quality/quantity facility selection hierarchy (Newberg Design Standards section 4.6.8), and per Newberg standard drawing 450, an Extended Dry Basin is most appropriate Regional Facility for the site area. Analyses were performed using HydroCAD software to show and determine the capacity and conveyance of the proposed extended dry basin facility at each of the relevant storm events. Reach 6R represents the creek basin that exits the property to the southwest.

The top of pond elevation is 163.33' with the bottom of pond elevation set at 159.83'. The proposed extended dry basin is designed to have 0.4' of dead storage at the bottom of pond and with a minimum of 1' of freeboard at the 25-year storm event per City of Newberg standards. The extended dry basin is designed with a flow control structure with orifices to reduce post-development stormwater runoff rates be equal to or less than the pre-development stormwater runoff rates as well as control the WQ event. The basin also has a secondary ditch inlet set at the maximum 25-year pond elevation to combat the effects of the 50-yr and 100-yr storms. The 25-year storm event pond elevation is below the required minimum 1' freeboard. These structures are summarized in Table 4 below. The pond elevations for respective storm events are summarized in Table 5 below.

Table 4 – Pond Outlet Structures

Outlet Structure & Size	IE Out
0.7" Orifice (WQ)	160.23'
3" Orifice	161.10'
2.3" Orifice	161.18'
1.5" Orifice	161.42'
Ditch Inlet	161.83'
100-yr Spillway (3'L x 0.5' H)	162.83'

Table 5 – Pond Max Water Surface Elevations

Design Storm Event	½ of 2-Year	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year
Maximum Water Surface Elevation	161.18'	161.42'	161.54'	161.66'	161.78'	161.83'	161.85'

Although there is a 100-yr spillway designed, the outfall pipe Reach 5R has significant capacity to handle the event.

**Hydrology**

Analyses were performed using the HydroCAD software (See Attachments A-C). Subcatchment flows are summarized in Table 6 below. Predeveloped (Attachment B) is a summation of 1S & 2S exiting Reach 6R, while post-developed (Attachment C) is Reach 6R which is the outfalls Pond 4P & Subcatchment 2S. There will be a decrease in peak runoff rates for all relevant storm events.

Table 6 – Runoff Summary (excluding area in the Public ROW)

<b>Development Condition</b>	<b>½ of 2 Year Storm</b>	<b>2-Year Storm</b>	<b>5-Year Storm</b>	<b>10-Year Storm</b>	<b>25-Year Storm</b>
Predevelopment	0.043 cfs	0.205 cfs	0.299 cfs	0.399 cfs	0.506 cfs
Post-Development	0.031 cfs	0.204 cfs	0.285 cfs	0.355 cfs	0.418 cfs

**Conclusions**

The proposed development complies with the City of Newberg requirements for stormwater quality and quantity treatment. The extended dry basin as sized is capable of handling stormwater onsite to City of Newberg Standards without accounting for infiltration. Final design will include infiltration.

**Appendices**

- Appendix A – HydroCAD: Water Quality Storm
- Appendix B – HydroCAD: Predeveloped Condition
- Appendix C – HydroCAD: Post-developed Condition
- Appendix D – Preliminary Stormwater Design Plans

# ATTACHMENT A



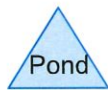
Forest Pre & Post



Post-Development



Extended Dry Basin





**Blaine Street WQ Storm 2020-018**

Type IA 24-hr WQ Storm Rainfall=1.00"

Prepared by HBH Consulting Engineers

Printed 10/14/2020

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Page 2

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points

Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 2S: Forest Pre & Post**

Runoff Area=14,020 sf 0.00% Impervious Runoff Depth=0.13"  
Flow Length=237' Tc=14.1 min CN=83/0 Runoff=0.003 cfs 154 cf

**Subcatchment 3S: Post-Development**

Runoff Area=42,062 sf 60.67% Impervious Runoff Depth=0.50"  
Flow Length=540' Tc=27.1 min CN=77/98 Runoff=0.090 cfs 1,748 cf

**Pond 8P: Extended Dry Basin**

Peak Elev=161.52' Storage=1,748 cf Inflow=0.090 cfs 1,748 cf  
Outflow=0.000 cfs 0 cf

**Blaine Street WQ Storm 2020-018**

Type IA 24-hr WQ Storm Rainfall=1.00"

Prepared by HBH Consulting Engineers

Printed 10/14/2020

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Page 3

**Summary for Subcatchment 2S: Forest Pre & Post**

Runoff = 0.003 cfs @ 17.35 hrs, Volume= 154 cf, Depth= 0.13"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr WQ Storm Rainfall=1.00"

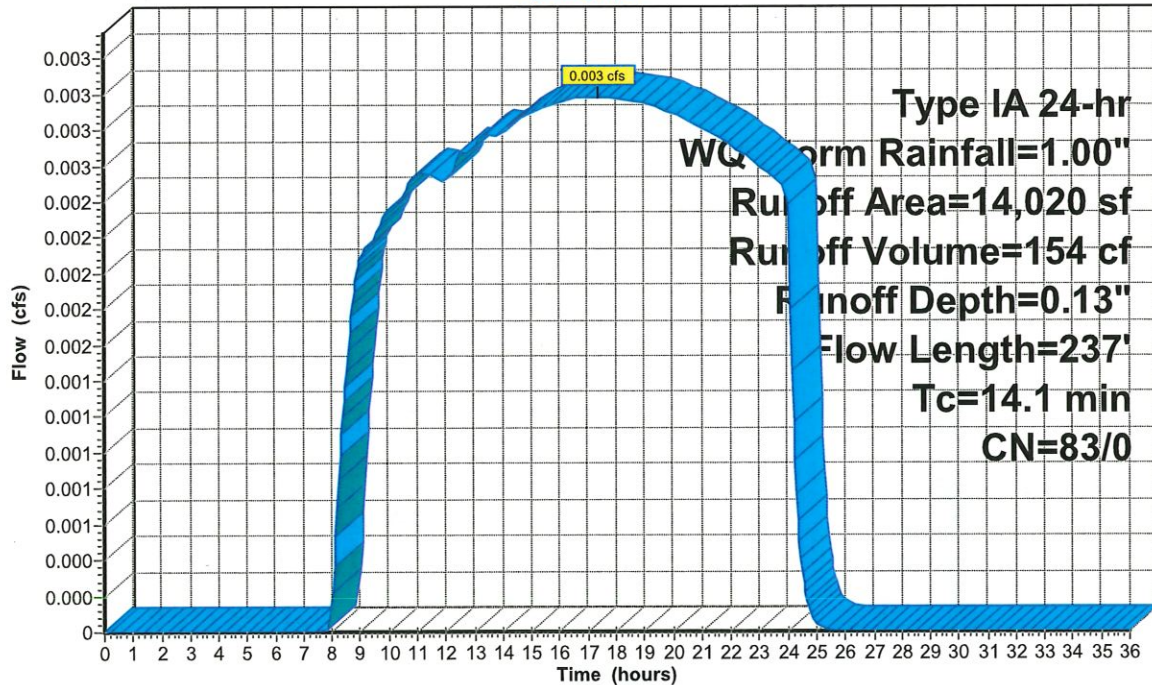
Area (sf)	CN	Description
14,020	83	Woods, Poor, HSG D
14,020	83	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	60	0.0200	0.14		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
6.5	137	0.0200	0.35		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
14.1	237	Total			

**Subcatchment 2S: Forest Pre & Post**

Hydrograph



**Blaine Street WQ Storm 2020-018**

Type IA 24-hr WQ Storm Rainfall=1.00"

Prepared by HBH Consulting Engineers

Printed 10/14/2020

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Page 4

**Summary for Subcatchment 3S: Post-Development**

Runoff = 0.090 cfs @ 8.04 hrs, Volume= 1,748 cf, Depth= 0.50"

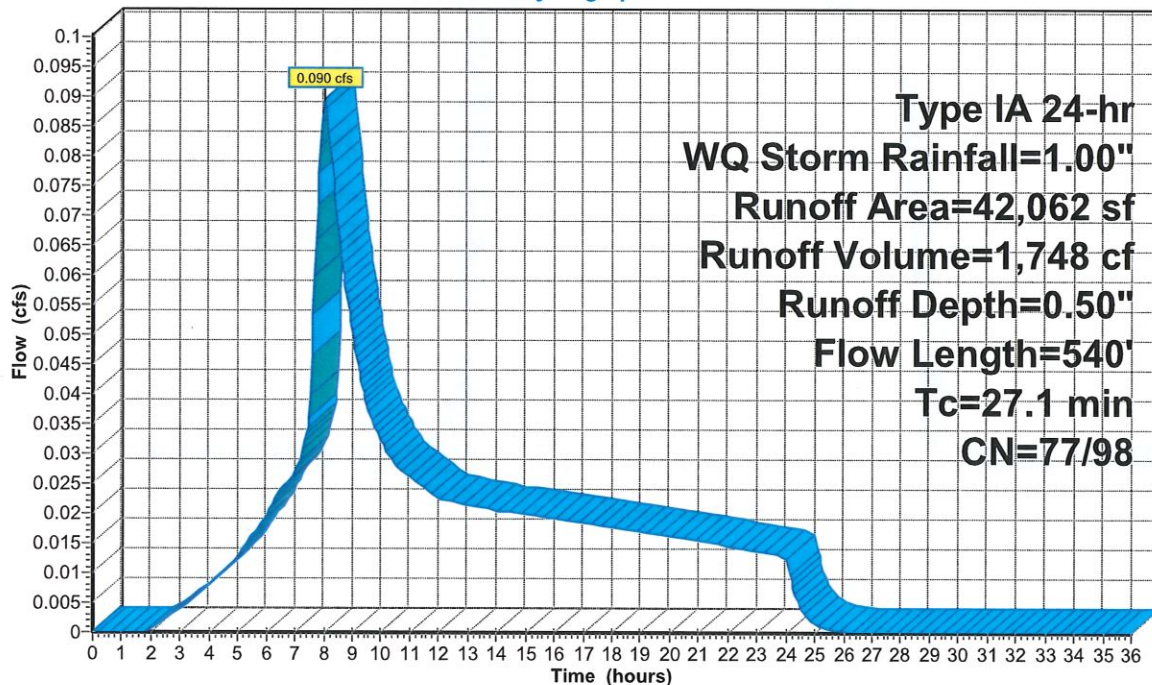
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr WQ Storm Rainfall=1.00"

Area (sf)	CN	Description
* 16,543	77	>75% Grass cover, Good, HSG C/D
* 25,519	98	Asphalt/Concrete/Roofs, HSG C/D
42,062	90	Weighted Average
16,543	77	39.33% Pervious Area
25,519	98	60.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.8	150	0.0100	0.13		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
2.2	150	0.0266	1.14		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
4.7	200	0.0800	0.71		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
27.1	540	Total			

**Subcatchment 3S: Post-Development**

Hydrograph





**Blaine Street WQ Storm 2020-018**

Type IA 24-hr WQ Storm Rainfall=1.00"

Prepared by HBH Consulting Engineers

Printed 10/14/2020

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Page 5

**Summary for Pond 8P: Extended Dry Basin**

Inflow Area = 42,062 sf, 60.67% Impervious, Inflow Depth = 0.50" for WQ Storm event  
 Inflow = 0.090 cfs @ 8.04 hrs, Volume= 1,748 cf  
 Outflow = 0.000 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min

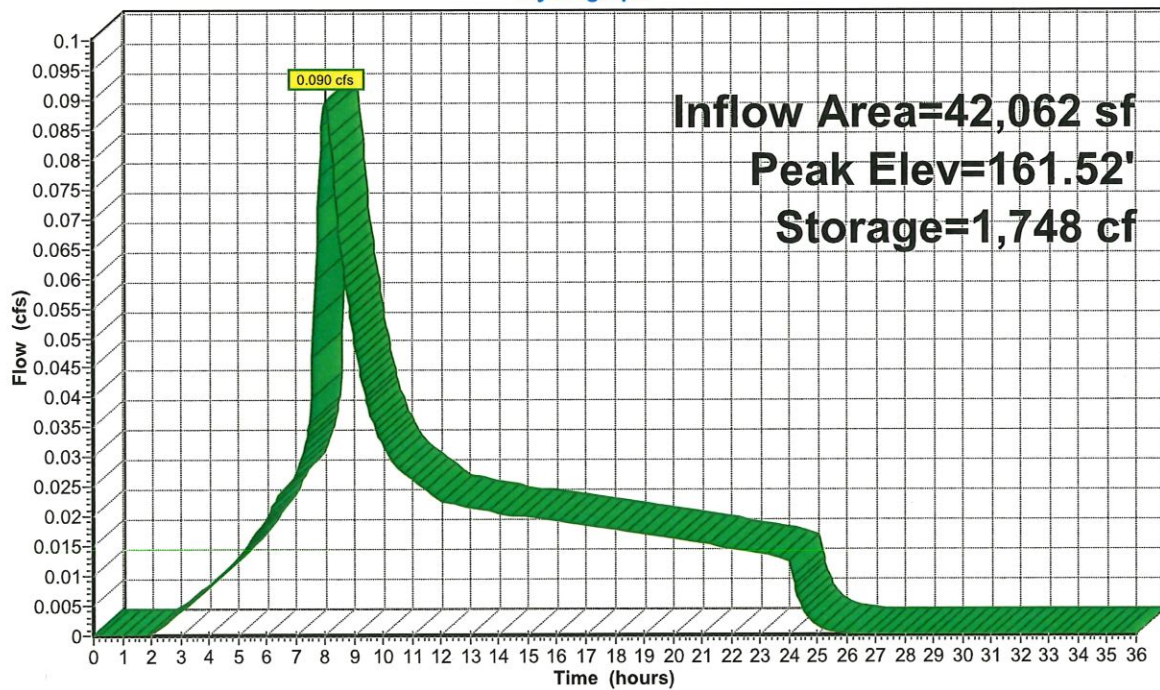
Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Peak Elev= 161.52' @ 35.95 hrs Surf.Area= 1,713 sf Storage= 1,748 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)  
 Center-of-Mass det. time= (not calculated: no outflow)

Volume #1	Invert 159.83'	Avail.Storage 6,315 cf	Storage Description
<b>Custom Stage Data (Prismatic) Listed below (Recalc)</b>			
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
159.83	391	0	0
160.83	1,142	767	767
161.83	1,972	1,557	2,324
162.83	2,884	2,428	4,752
163.33	3,370	1,564	6,315

**Pond 8P: Extended Dry Basin**

Hydrograph



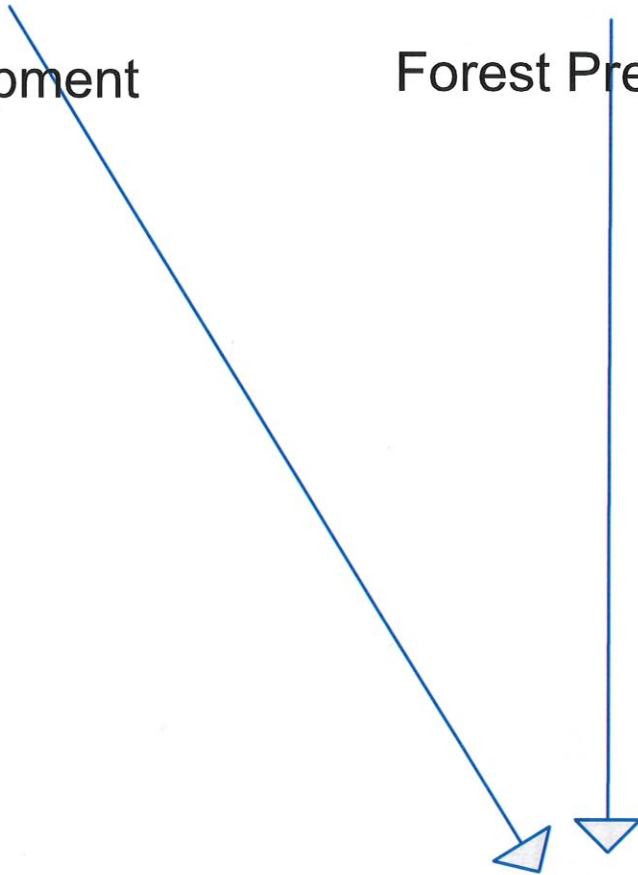
# ATTACHMENT B



Predevelopment



Forest Pre & Post



Creek Basin



**Blaine Street Predeveloped 2020-018**

Type IA 24-hr 1/2 of 2 year Rainfall=1.25"

Prepared by HBH Consulting Engineers

Printed 10/14/2020

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Page 2

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points

Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 1S: Predevelopment**

Runoff Area=42,062 sf 20.34% Impervious Runoff Depth=0.30"  
Flow Length=540' Tc=27.1 min CN=77/98 Runoff=0.039 cfs 1,064 cf

**Subcatchment 2S: Forest Pre & Post**

Runoff Area=14,020 sf 0.00% Impervious Runoff Depth=0.24"  
Flow Length=237' Tc=14.1 min CN=83/0 Runoff=0.006 cfs 286 cf

**Reach 6R: Creek Basin**

Avg. Flow Depth=0.15' Max Vel=0.27 fps Inflow=0.045 cfs 1,350 cf  
n=0.140 L=137.0' S=0.0200 ' Capacity=251.047 cfs Outflow=0.043 cfs 1,350 cf



**Summary for Subcatchment 1S: Predevelopment**

Runoff = 0.039 cfs @ 8.04 hrs, Volume= 1,064 cf, Depth= 0.30"

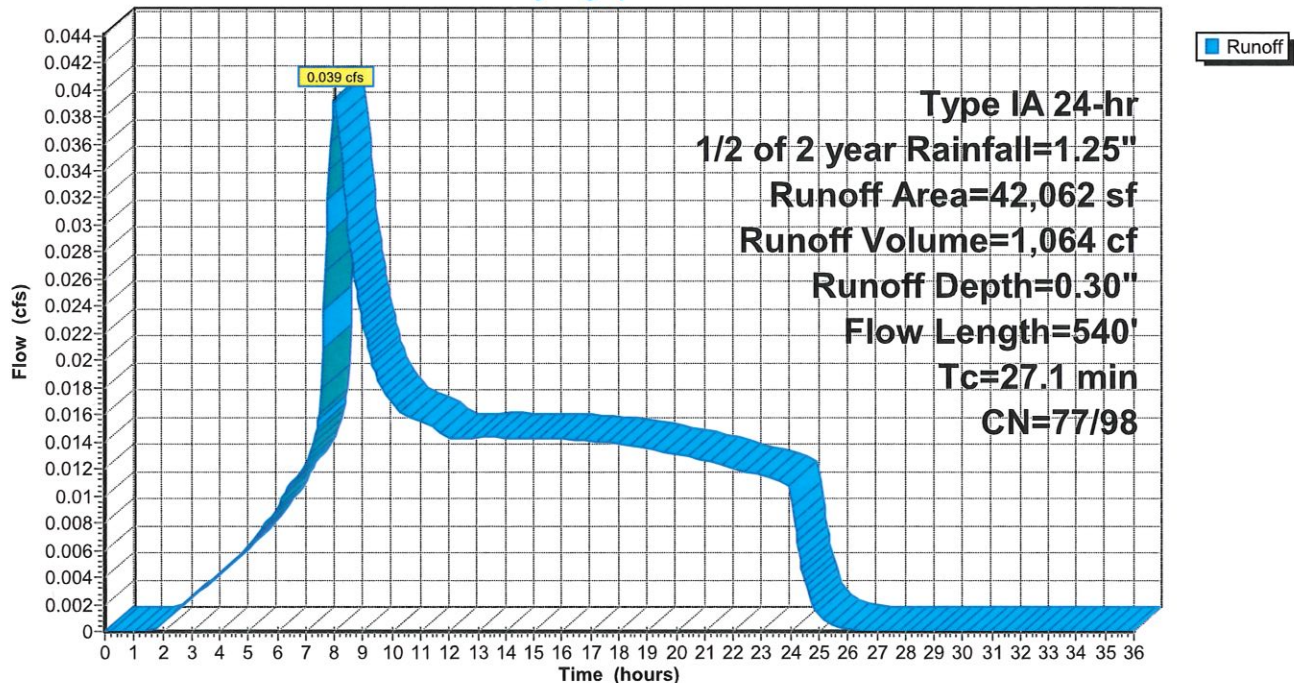
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 1/2 of 2 year Rainfall=1.25"

	Area (sf)	CN	Description
*	33,508	77	>75% Grass cover, Good, HSG C/D
*	8,554	98	Asphalt/Concrete/Roofs, HSG C/D
	42,062	81	Weighted Average
	33,508	77	79.66% Pervious Area
	8,554	98	20.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.8	150	0.0100	0.13		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
2.2	150	0.0266	1.14		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
4.7	200	0.0800	0.71		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
27.1	540	Total			

**Subcatchment 1S: Predevelopment**

Hydrograph



**Summary for Subcatchment 2S: Forest Pre & Post**

Runoff = 0.006 cfs @ 8.26 hrs, Volume= 286 cf, Depth= 0.24"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 1/2 of 2 year Rainfall=1.25"

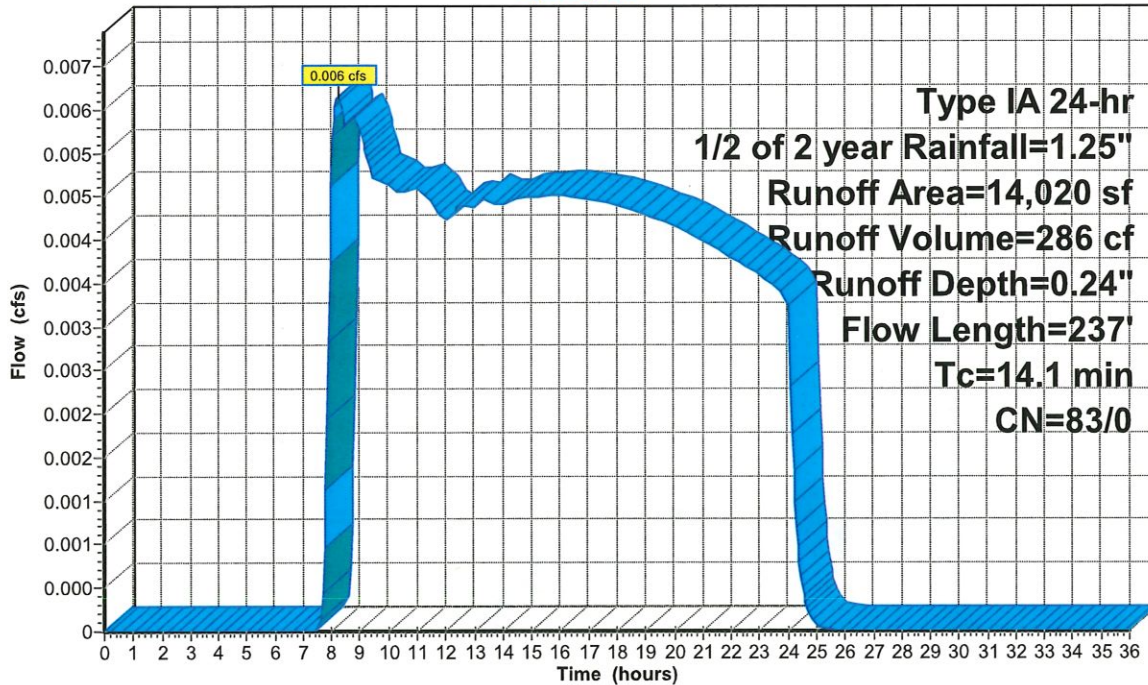
Area (sf)	CN	Description
14,020	83	Woods, Poor, HSG D
14,020	83	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	60	0.0200	0.14		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
6.5	137	0.0200	0.35		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
14.1	237	Total			

**Subcatchment 2S: Forest Pre & Post**

Hydrograph





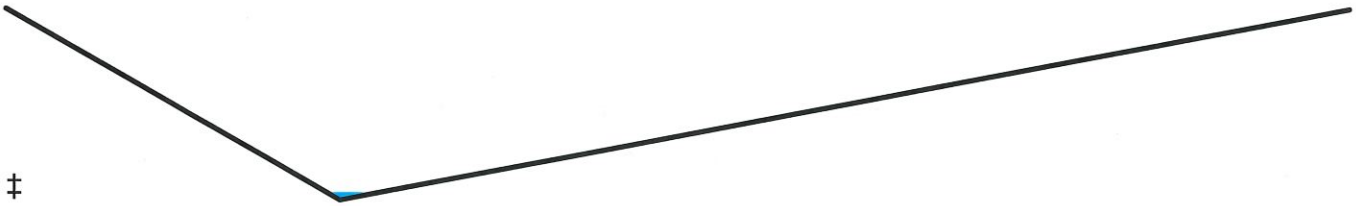
**Summary for Reach 6R: Creek Basin**

Inflow Area = 56,082 sf, 15.25% Impervious, Inflow Depth = 0.29" for 1/2 of 2 year event  
 Inflow = 0.045 cfs @ 8.06 hrs, Volume= 1,350 cf  
 Outflow = 0.043 cfs @ 8.20 hrs, Volume= 1,350 cf, Atten= 4%, Lag= 8.4 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.27 fps, Min. Travel Time= 8.4 min  
 Avg. Velocity = 0.20 fps, Avg. Travel Time= 11.6 min

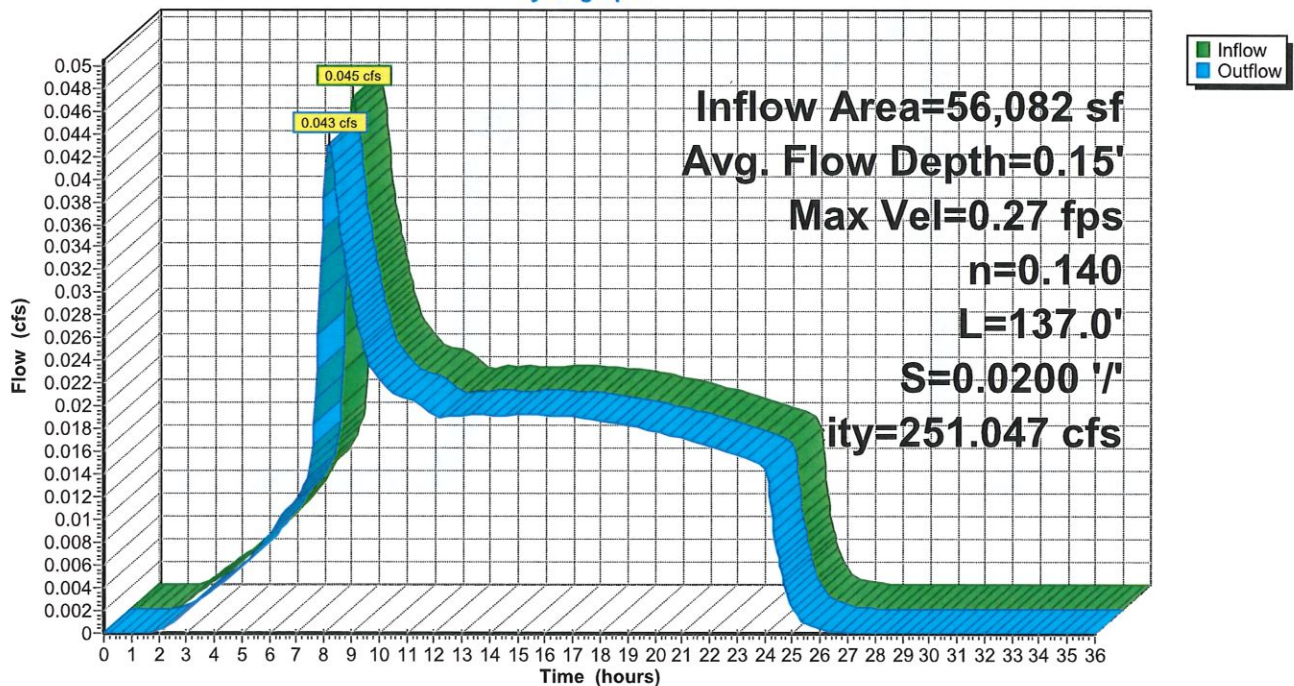
Peak Storage= 22 cf @ 8.20 hrs  
 Average Depth at Peak Storage= 0.15'  
 Bank-Full Depth= 4.00' Flow Area= 106.4 sf, Capacity= 251.047 cfs

0.00' x 4.00' deep channel, n= 0.140 Earth, dense brush, high stage  
 Side Slope Z-value= 3.3 10.0 '/' Top Width= 53.20'  
 Length= 137.0' Slope= 0.0200 '/'  
 Inlet Invert= 137.00', Outlet Invert= 134.26'



**Reach 6R: Creek Basin**

Hydrograph





**Blaine Street Predeveloped 2020-018**

Type IA 24-hr 2yr Rainfall=2.50"

Prepared by HBH Consulting Engineers

Printed 10/14/2020

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Page 6

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points

Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 1S: Predevelopment**

Runoff Area=42,062 sf 20.34% Impervious Runoff Depth=1.05"  
Flow Length=540' Tc=27.1 min CN=77/98 Runoff=0.148 cfs 3,686 cf

**Subcatchment 2S: Forest Pre & Post**

Runoff Area=14,020 sf 0.00% Impervious Runoff Depth=1.06"  
Flow Length=237' Tc=14.1 min CN=83/0 Runoff=0.064 cfs 1,234 cf

**Reach 6R: Creek Basin**

Avg. Flow Depth=0.28' Max Vel=0.40 fps Inflow=0.211 cfs 4,919 cf  
n=0.140 L=137.0' S=0.0200 '/' Capacity=251.047 cfs Outflow=0.205 cfs 4,919 cf

**Blaine Street Predeveloped 2020-018**

Prepared by HBH Consulting Engineers

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Type IA 24-hr 2yr Rainfall=2.50"

Printed 10/14/2020

Page 7

**Summary for Subcatchment 1S: Predevelopment**

Runoff = 0.148 cfs @ 8.07 hrs, Volume= 3,686 cf, Depth= 1.05"

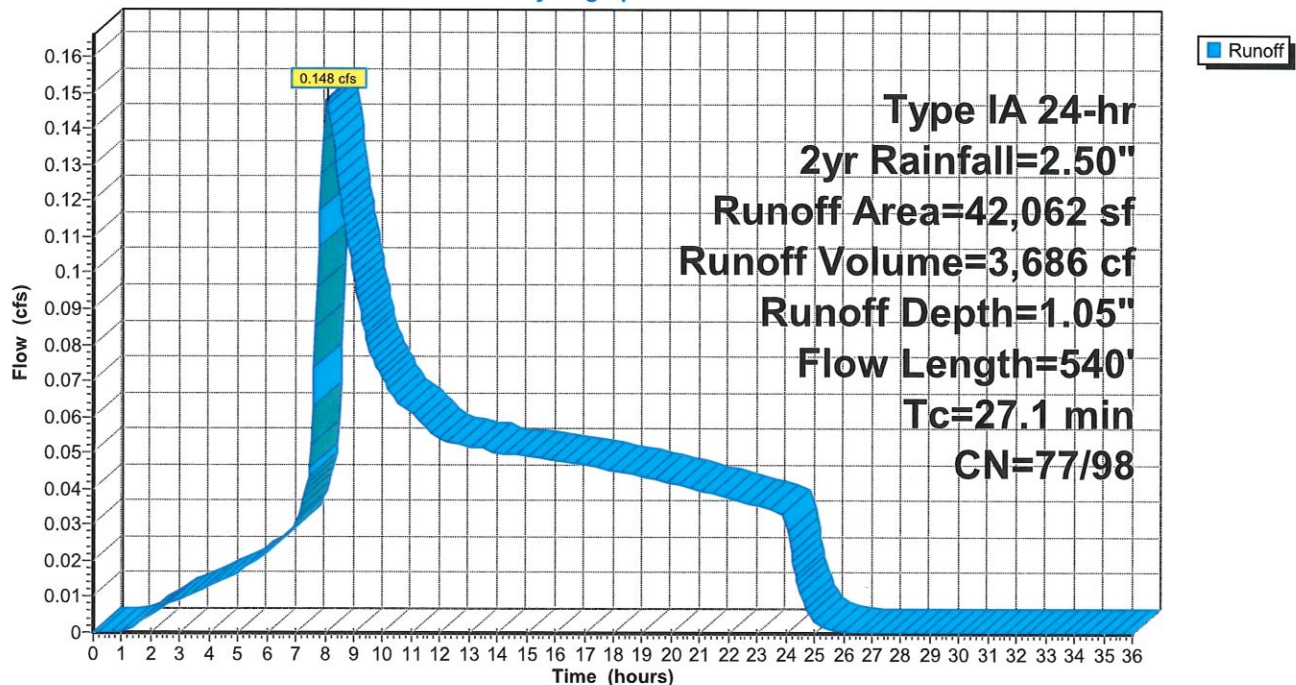
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 2yr Rainfall=2.50"

Area (sf)	CN	Description
* 33,508	77	>75% Grass cover, Good, HSG C/D
* 8,554	98	Asphalt/Concrete/Roofs, HSG C/D
42,062	81	Weighted Average
33,508	77	79.66% Pervious Area
8,554	98	20.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.8	150	0.0100	0.13		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
2.2	150	0.0266	1.14		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
4.7	200	0.0800	0.71		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
27.1	540	Total			

**Subcatchment 1S: Predevelopment**

Hydrograph



**Blaine Street Predeveloped 2020-018**

Prepared by HBH Consulting Engineers

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Type IA 24-hr 2yr Rainfall=2.50"

Printed 10/14/2020

Page 8

**Summary for Subcatchment 2S: Forest Pre & Post**

Runoff = 0.064 cfs @ 8.02 hrs, Volume= 1,234 cf, Depth= 1.06"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 2yr Rainfall=2.50"

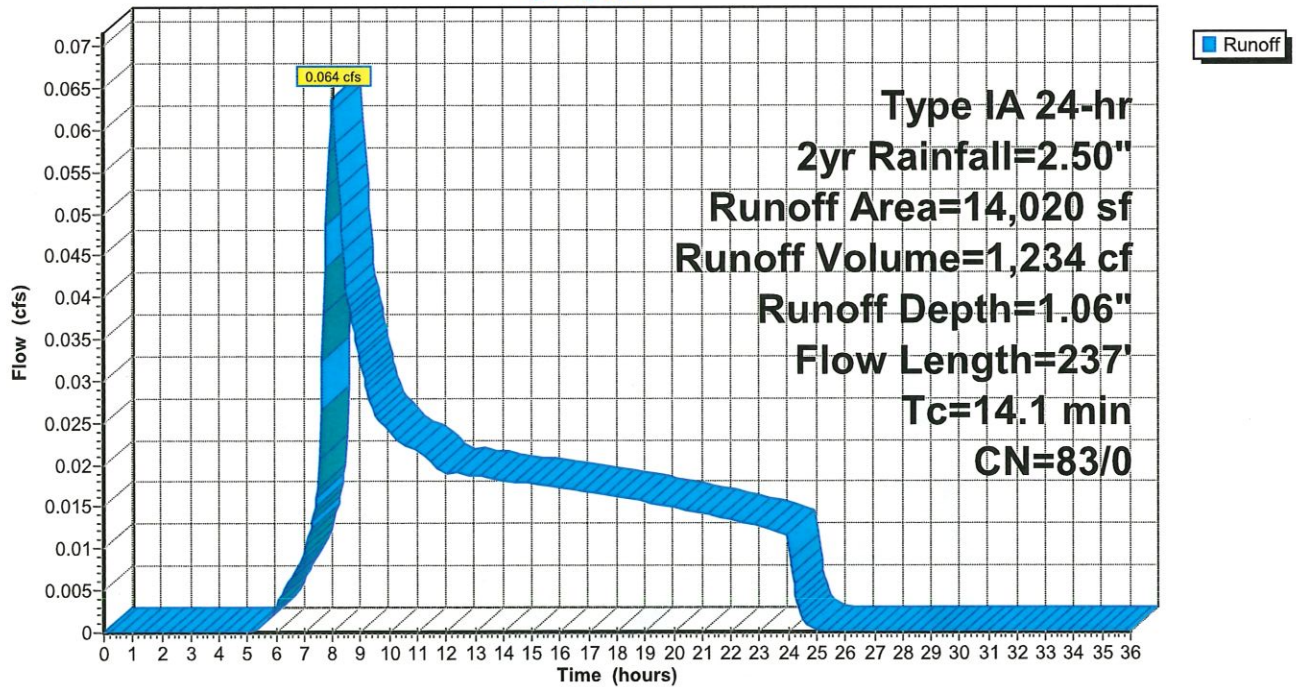
Area (sf)	CN	Description
14,020	83	Woods, Poor, HSG D
14,020	83	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	60	0.0200	0.14		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
6.5	137	0.0200	0.35		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
14.1	237	Total			

**Subcatchment 2S: Forest Pre & Post**

Hydrograph





**Blaine Street Predeveloped 2020-018**

Prepared by HBH Consulting Engineers

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Type IA 24-hr 2yr Rainfall=2.50"

Printed 10/14/2020

Page 9

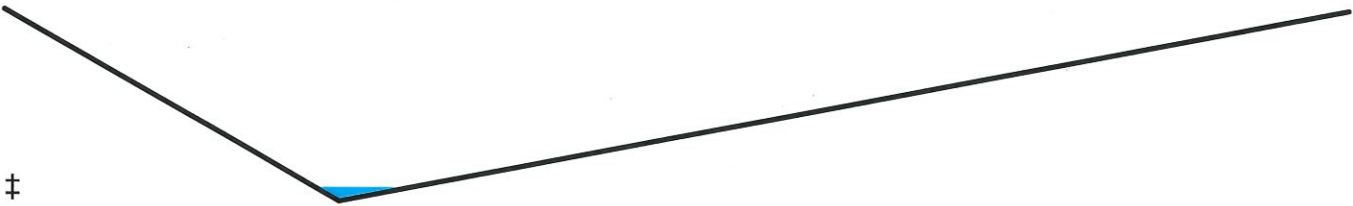
**Summary for Reach 6R: Creek Basin**

Inflow Area = 56,082 sf, 15.25% Impervious, Inflow Depth = 1.05" for 2yr event  
Inflow = 0.211 cfs @ 8.05 hrs, Volume= 4,919 cf  
Outflow = 0.205 cfs @ 8.14 hrs, Volume= 4,919 cf, Atten= 3%, Lag= 5.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Max. Velocity= 0.40 fps, Min. Travel Time= 5.7 min  
Avg. Velocity = 0.26 fps, Avg. Travel Time= 8.9 min

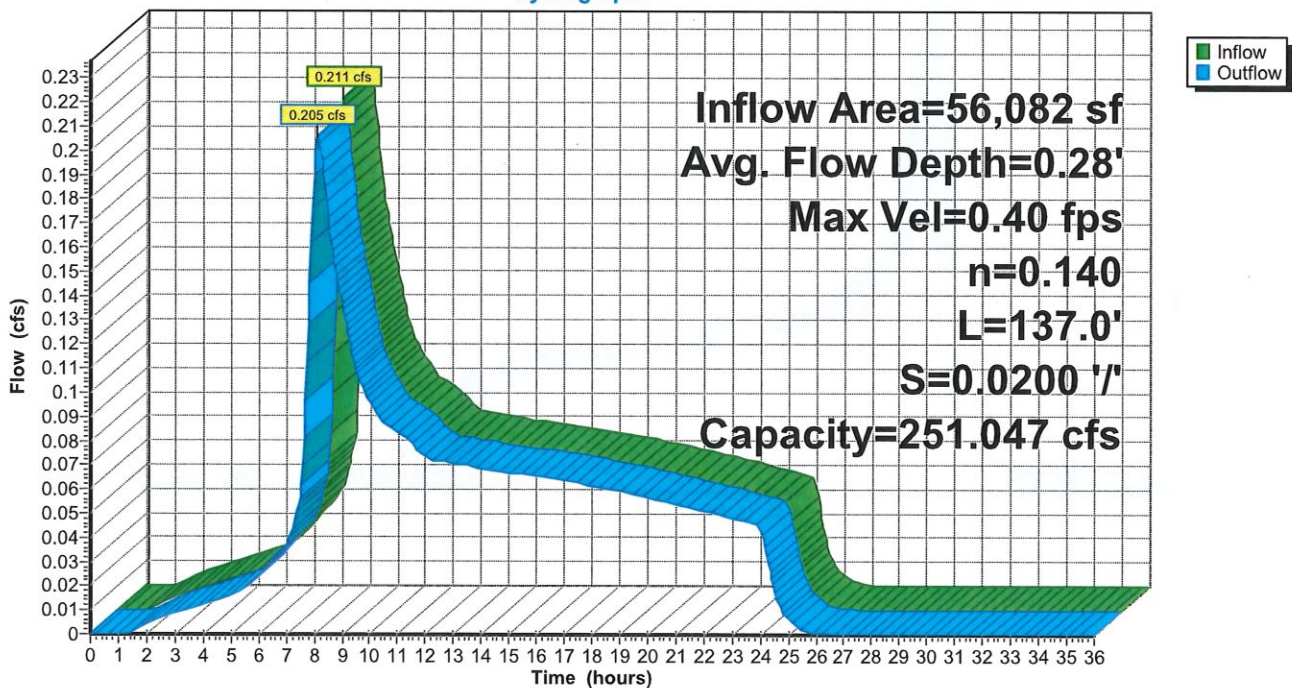
Peak Storage= 70 cf @ 8.14 hrs  
Average Depth at Peak Storage= 0.28'  
Bank-Full Depth= 4.00' Flow Area= 106.4 sf, Capacity= 251.047 cfs

0.00' x 4.00' deep channel, n= 0.140 Earth, dense brush, high stage  
Side Slope Z-value= 3.3 10.0 '/' Top Width= 53.20'  
Length= 137.0' Slope= 0.0200 '/'  
Inlet Invert= 137.00', Outlet Invert= 134.26'



**Reach 6R: Creek Basin**

Hydrograph



**Blaine Street Predeveloped 2020-018**

Type IA 24-hr 5yr Rainfall=3.00"

Prepared by HBH Consulting Engineers

Printed 10/14/2020

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Page 10

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points

Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 1S: Predevelopment**

Runoff Area=42,062 sf 20.34% Impervious Runoff Depth=1.42"  
Flow Length=540' Tc=27.1 min CN=77/98 Runoff=0.213 cfs 4,964 cf

**Subcatchment 2S: Forest Pre & Post**

Runoff Area=14,020 sf 0.00% Impervious Runoff Depth=1.45"  
Flow Length=237' Tc=14.1 min CN=83/0 Runoff=0.094 cfs 1,690 cf

**Reach 6R: Creek Basin**

Avg. Flow Depth=0.32' Max Vel=0.44 fps Inflow=0.306 cfs 6,654 cf  
n=0.140 L=137.0' S=0.0200 '/' Capacity=251.047 cfs Outflow=0.299 cfs 6,654 cf

**Blaine Street Predeveloped 2020-018**

Prepared by HBH Consulting Engineers

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Type IA 24-hr 5yr Rainfall=3.00"

Printed 10/14/2020

Page 11

**Summary for Subcatchment 1S: Predevelopment**

Runoff = 0.213 cfs @ 8.06 hrs, Volume= 4,964 cf, Depth= 1.42"

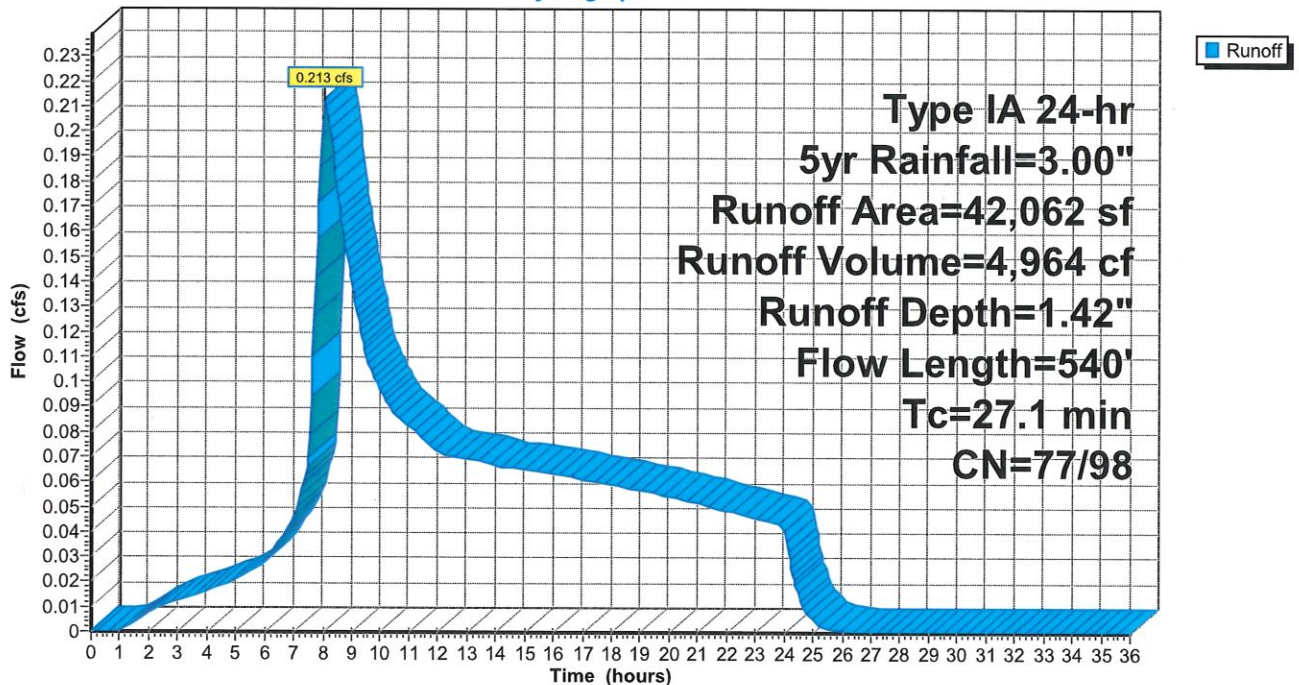
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 5yr Rainfall=3.00"

	Area (sf)	CN	Description
*	33,508	77	>75% Grass cover, Good, HSG C/D
*	8,554	98	Asphalt/Concrete/Roofs, HSG C/D
	42,062	81	Weighted Average
	33,508	77	79.66% Pervious Area
	8,554	98	20.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.8	150	0.0100	0.13		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
2.2	150	0.0266	1.14		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
4.7	200	0.0800	0.71		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
27.1	540	Total			

**Subcatchment 1S: Predevelopment**

Hydrograph





**Blaine Street Predeveloped 2020-018**

Prepared by HBH Consulting Engineers

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Type IA 24-hr 5yr Rainfall=3.00"

Printed 10/14/2020

Page 12

**Summary for Subcatchment 2S: Forest Pre & Post**

Runoff = 0.094 cfs @ 8.02 hrs, Volume= 1,690 cf, Depth= 1.45"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 5yr Rainfall=3.00"

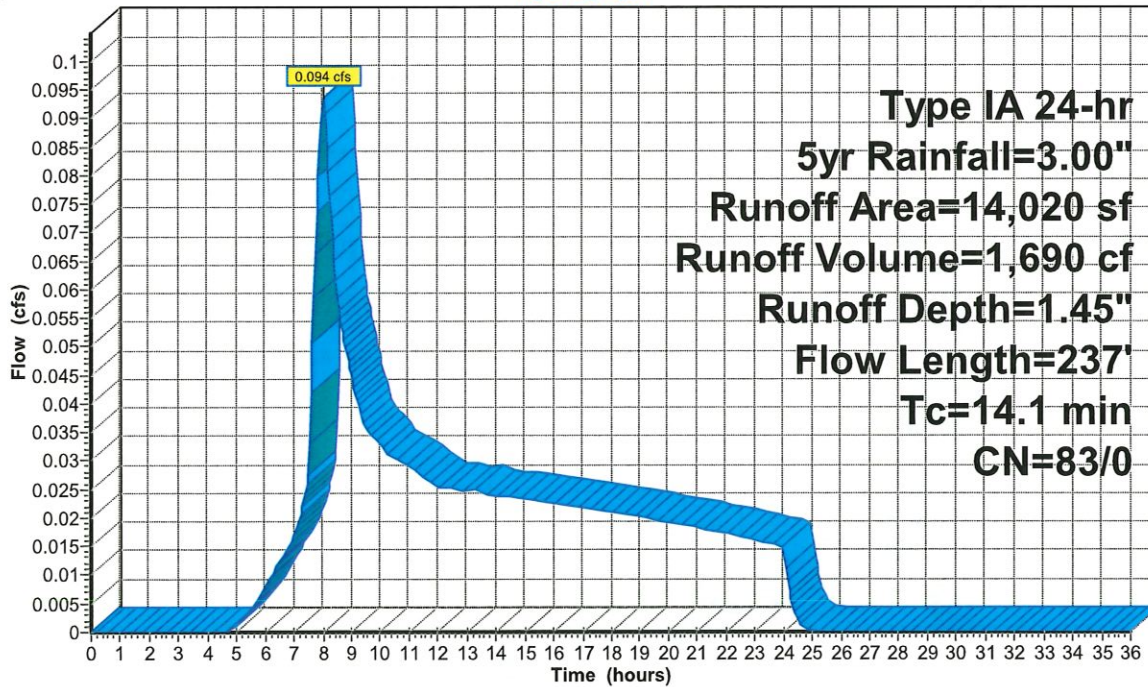
Area (sf)	CN	Description
14,020	83	Woods, Poor, HSG D
14,020	83	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	60	0.0200	0.14		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
6.5	137	0.0200	0.35		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
14.1	237	Total			

**Subcatchment 2S: Forest Pre & Post**

Hydrograph



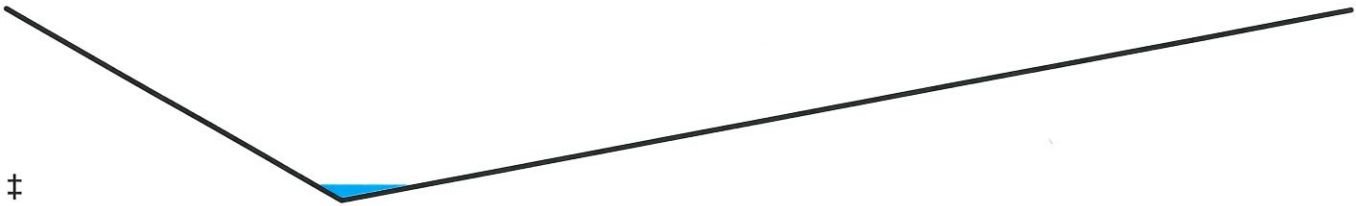
**Summary for Reach 6R: Creek Basin**

Inflow Area = 56,082 sf, 15.25% Impervious, Inflow Depth = 1.42" for 5yr event  
 Inflow = 0.306 cfs @ 8.05 hrs, Volume= 6,654 cf  
 Outflow = 0.299 cfs @ 8.12 hrs, Volume= 6,654 cf, Atten= 2%, Lag= 4.4 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.44 fps, Min. Travel Time= 5.2 min  
 Avg. Velocity = 0.27 fps, Avg. Travel Time= 8.3 min

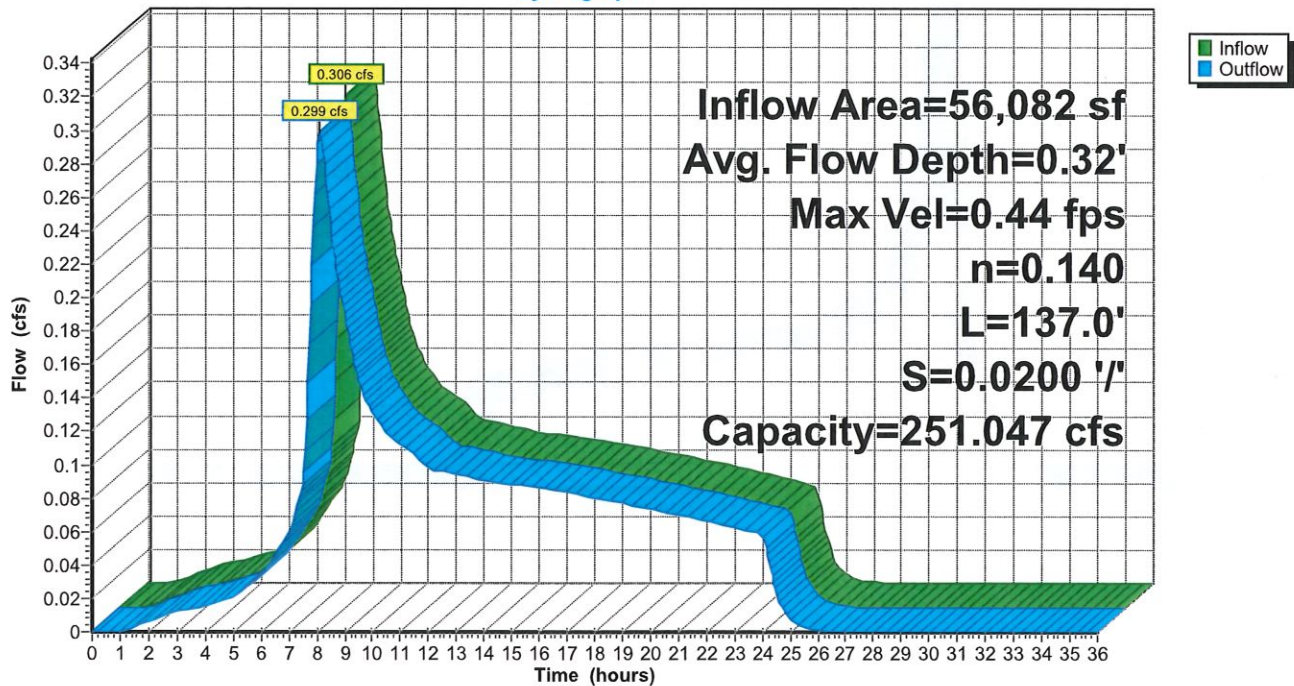
Peak Storage= 93 cf @ 8.12 hrs  
 Average Depth at Peak Storage= 0.32'  
 Bank-Full Depth= 4.00' Flow Area= 106.4 sf, Capacity= 251.047 cfs

0.00' x 4.00' deep channel, n= 0.140 Earth, dense brush, high stage  
 Side Slope Z-value= 3.3 10.0 '/' Top Width= 53.20'  
 Length= 137.0' Slope= 0.0200 '/'  
 Inlet Invert= 137.00', Outlet Invert= 134.26'



**Reach 6R: Creek Basin**

Hydrograph



**Blaine Street Predeveloped 2020-018**

Type IA 24-hr 10yr Rainfall=3.50"

Prepared by HBH Consulting Engineers

Printed 10/14/2020

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Page 14

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points

Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 1S: Predevelopment**

Runoff Area=42,062 sf 20.34% Impervious Runoff Depth=1.80"  
Flow Length=540' Tc=27.1 min CN=77/98 Runoff=0.284 cfs 6,323 cf

**Subcatchment 2S: Forest Pre & Post**

Runoff Area=14,020 sf 0.00% Impervious Runoff Depth=1.86"  
Flow Length=237' Tc=14.1 min CN=83/0 Runoff=0.125 cfs 2,171 cf

**Reach 6R: Creek Basin**

Avg. Flow Depth=0.36' Max Vel=0.47 fps Inflow=0.408 cfs 8,494 cf  
n=0.140 L=137.0' S=0.0200 ' Capacity=251.047 cfs Outflow=0.399 cfs 8,494 cf



**Summary for Subcatchment 1S: Predevelopment**

Runoff = 0.284 cfs @ 8.06 hrs, Volume= 6,323 cf, Depth= 1.80"

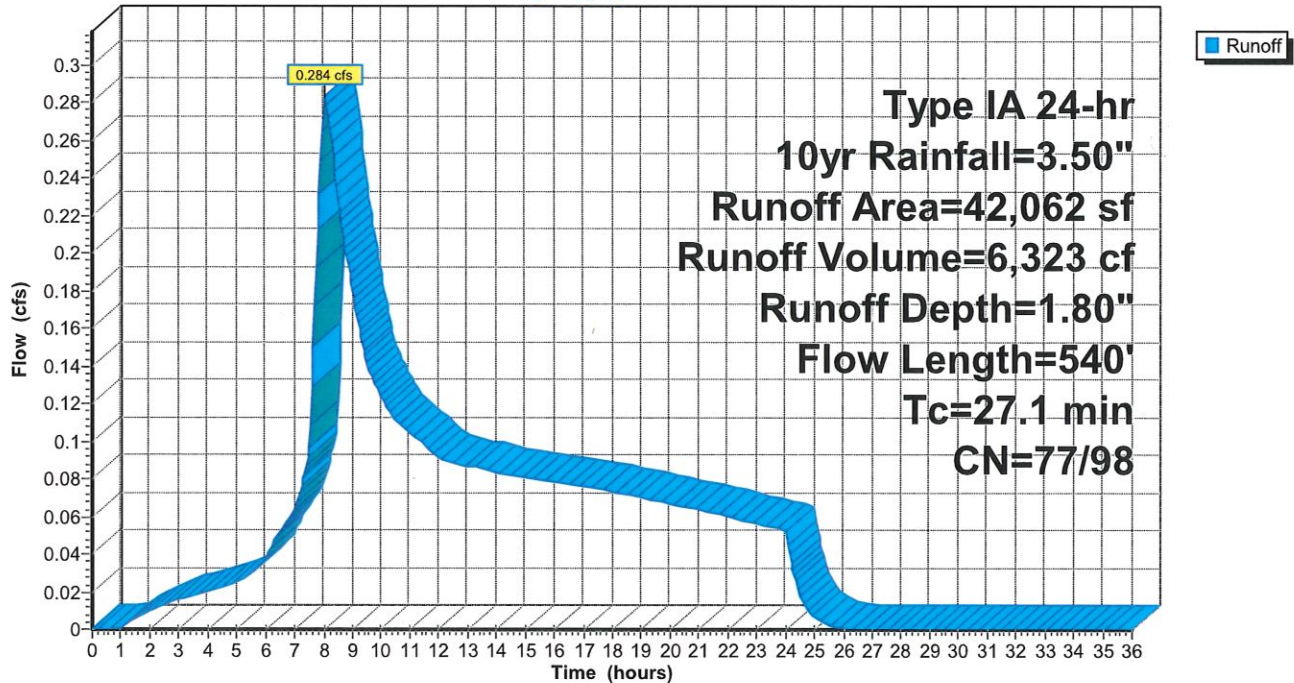
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 10yr Rainfall=3.50"

Area (sf)	CN	Description
* 33,508	77	>75% Grass cover, Good, HSG C/D
* 8,554	98	Asphalt/Concrete/Roofs, HSG C/D
42,062	81	Weighted Average
33,508	77	79.66% Pervious Area
8,554	98	20.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.8	150	0.0100	0.13		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
2.2	150	0.0266	1.14		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
4.7	200	0.0800	0.71		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
27.1	540	Total			

**Subcatchment 1S: Predevelopment**

Hydrograph



**Blaine Street Predeveloped 2020-018**

Prepared by HBH Consulting Engineers

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Type IA 24-hr 10yr Rainfall=3.50"

Printed 10/14/2020

Page 16

**Summary for Subcatchment 2S: Forest Pre & Post**

Runoff = 0.125 cfs @ 8.01 hrs, Volume= 2,171 cf, Depth= 1.86"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 10yr Rainfall=3.50"

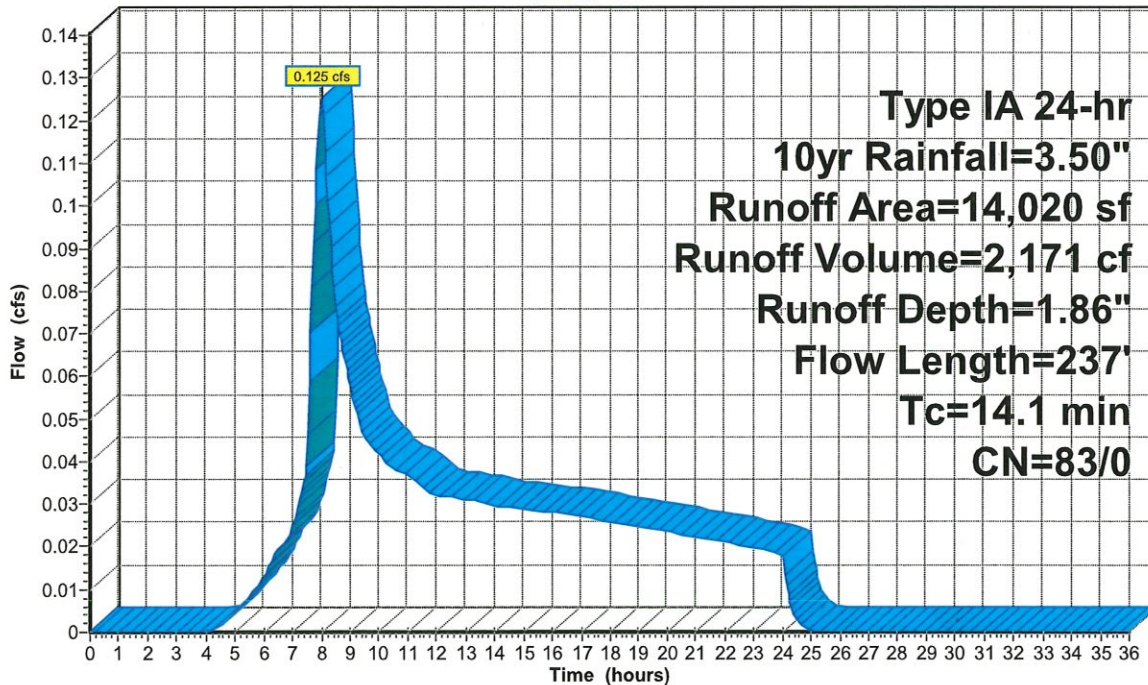
Area (sf)	CN	Description
14,020	83	Woods, Poor, HSG D
14,020	83	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	60	0.0200	0.14		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
6.5	137	0.0200	0.35		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
14.1	237	Total			

**Subcatchment 2S: Forest Pre & Post**

Hydrograph





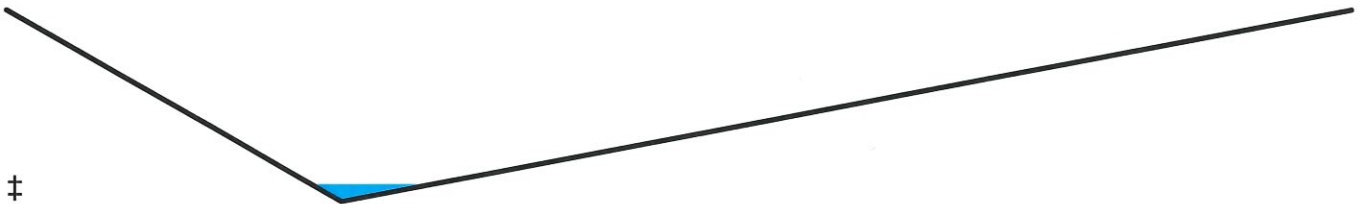
**Summary for Reach 6R: Creek Basin**

Inflow Area = 56,082 sf, 15.25% Impervious, Inflow Depth = 1.82" for 10yr event  
 Inflow = 0.408 cfs @ 8.04 hrs, Volume= 8,494 cf  
 Outflow = 0.399 cfs @ 8.11 hrs, Volume= 8,494 cf, Atten= 2%, Lag= 4.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.47 fps, Min. Travel Time= 4.8 min  
 Avg. Velocity = 0.29 fps, Avg. Travel Time= 7.9 min

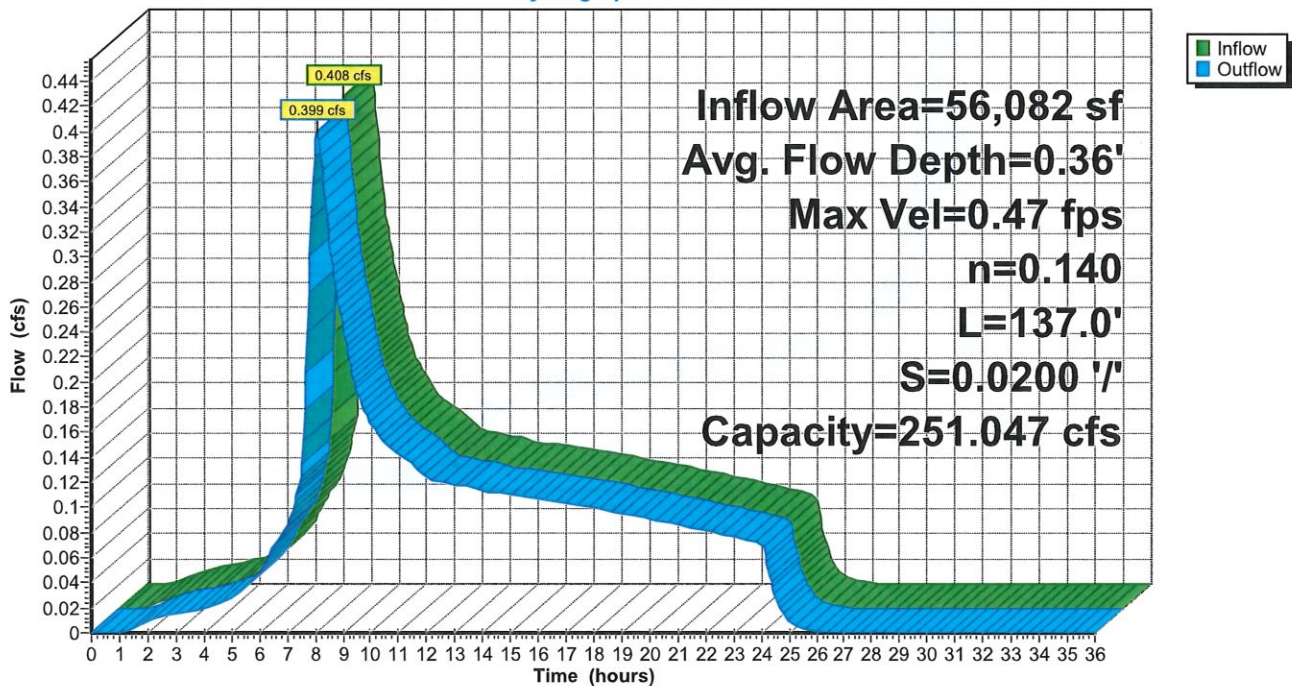
Peak Storage= 116 cf @ 8.11 hrs  
 Average Depth at Peak Storage= 0.36'  
 Bank-Full Depth= 4.00' Flow Area= 106.4 sf, Capacity= 251.047 cfs

0.00' x 4.00' deep channel, n= 0.140 Earth, dense brush, high stage  
 Side Slope Z-value= 3.3 10.0 '/' Top Width= 53.20'  
 Length= 137.0' Slope= 0.0200 '/'  
 Inlet Invert= 137.00', Outlet Invert= 134.26'



**Reach 6R: Creek Basin**

Hydrograph





**Blaine Street Predeveloped 2020-018**

Type IA 24-hr 25yr Rainfall=4.00"

Prepared by HBH Consulting Engineers

Printed 10/14/2020

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Page 18

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points

Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 1S: Predevelopment**

Runoff Area=42,062 sf 20.34% Impervious Runoff Depth=2.21"  
Flow Length=540' Tc=27.1 min CN=77/98 Runoff=0.359 cfs 7,743 cf

**Subcatchment 2S: Forest Pre & Post**

Runoff Area=14,020 sf 0.00% Impervious Runoff Depth=2.29"  
Flow Length=237' Tc=14.1 min CN=83/0 Runoff=0.159 cfs 2,671 cf

**Reach 6R: Creek Basin**

Avg. Flow Depth=0.39' Max Vel=0.50 fps Inflow=0.516 cfs 10,414 cf  
n=0.140 L=137.0' S=0.0200 '/' Capacity=251.047 cfs Outflow=0.506 cfs 10,414 cf

**Blaine Street Predeveloped 2020-018**

Prepared by HBH Consulting Engineers

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Type IA 24-hr 25yr Rainfall=4.00"

Printed 10/14/2020

Page 19

**Summary for Subcatchment 1S: Predevelopment**

Runoff = 0.359 cfs @ 8.06 hrs, Volume= 7,743 cf, Depth= 2.21"

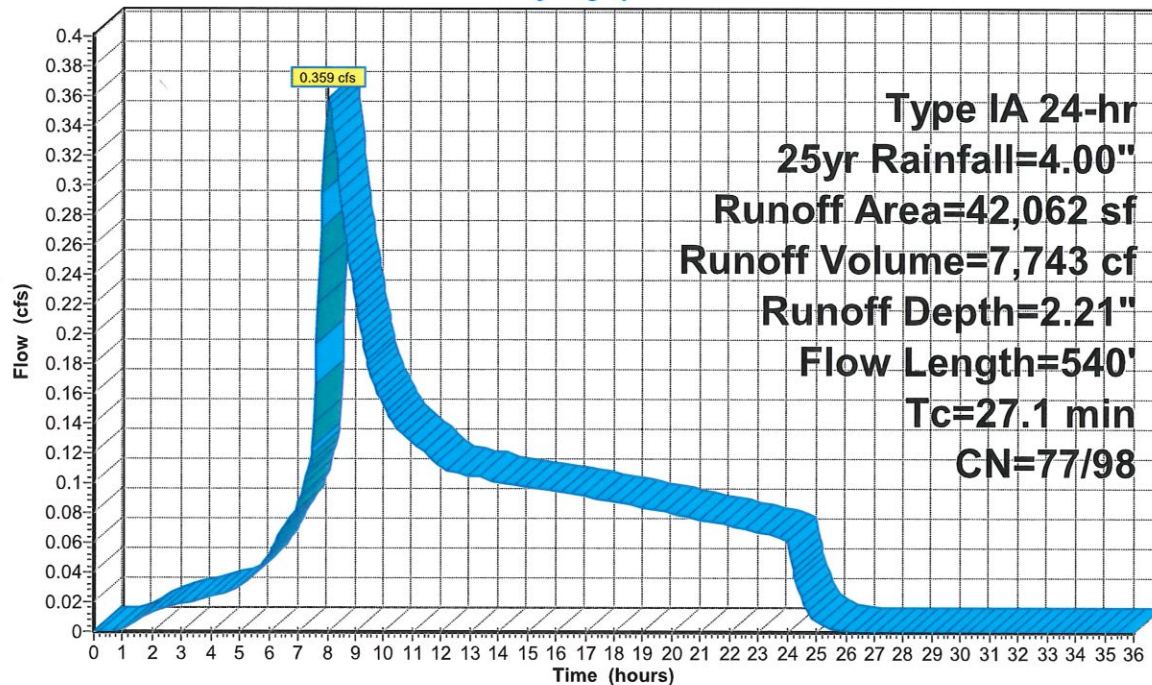
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 25yr Rainfall=4.00"

Area (sf)	CN	Description
* 33,508	77	>75% Grass cover, Good, HSG C/D
* 8,554	98	Asphalt/Concrete/Roofs, HSG C/D
42,062	81	Weighted Average
33,508	77	79.66% Pervious Area
8,554	98	20.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.8	150	0.0100	0.13		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
2.2	150	0.0266	1.14		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
4.7	200	0.0800	0.71		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
27.1	540	Total			

**Subcatchment 1S: Predevelopment**

Hydrograph



**Blaine Street Predeveloped 2020-018**

Prepared by HBH Consulting Engineers

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Type IA 24-hr 25yr Rainfall=4.00"

Printed 10/14/2020

Page 20

**Summary for Subcatchment 2S: Forest Pre & Post**

Runoff = 0.159 cfs @ 8.01 hrs, Volume= 2,671 cf, Depth= 2.29"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 25yr Rainfall=4.00"

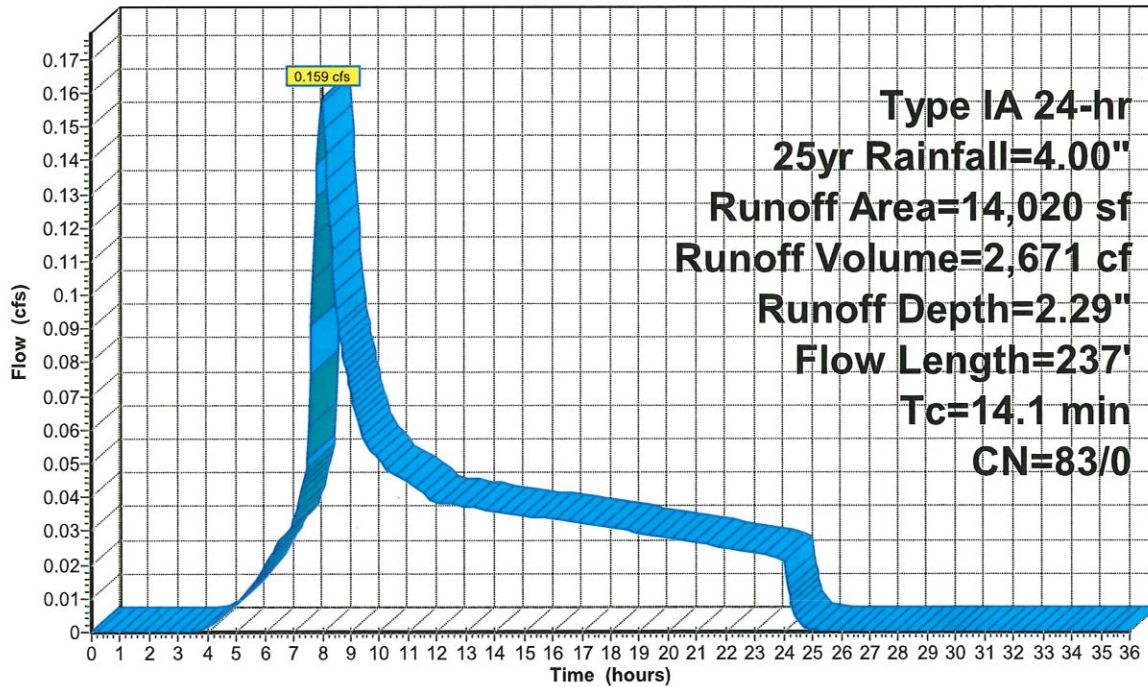
Area (sf)	CN	Description
14,020	83	Woods, Poor, HSG D
14,020	83	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	60	0.0200	0.14		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
6.5	137	0.0200	0.35		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
14.1	237	Total			

**Subcatchment 2S: Forest Pre & Post**

Hydrograph





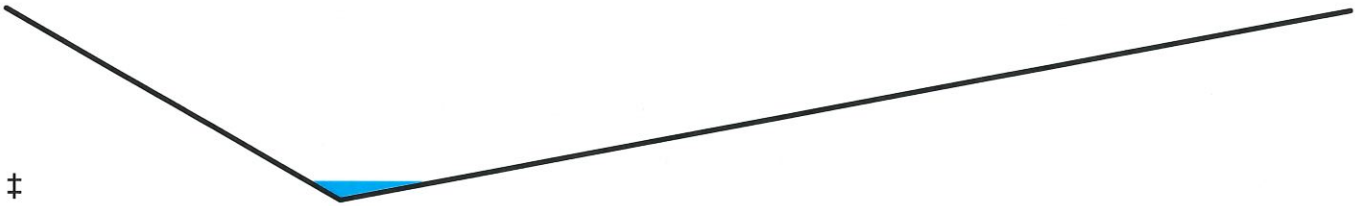
**Summary for Reach 6R: Creek Basin**

Inflow Area = 56,082 sf, 15.25% Impervious, Inflow Depth = 2.23" for 25yr event  
 Inflow = 0.516 cfs @ 8.04 hrs, Volume= 10,414 cf  
 Outflow = 0.506 cfs @ 8.10 hrs, Volume= 10,414 cf, Atten= 2%, Lag= 3.7 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.50 fps, Min. Travel Time= 4.6 min  
 Avg. Velocity = 0.30 fps, Avg. Travel Time= 7.6 min

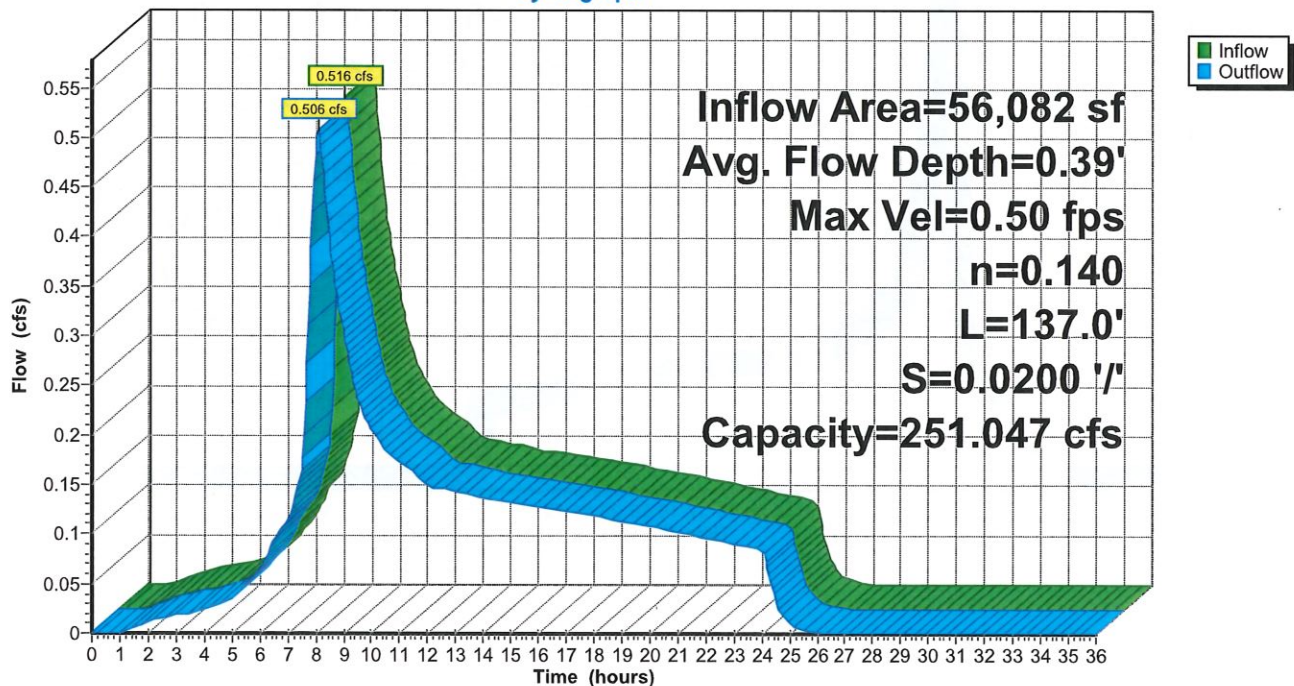
Peak Storage= 139 cf @ 8.10 hrs  
 Average Depth at Peak Storage= 0.39'  
 Bank-Full Depth= 4.00' Flow Area= 106.4 sf, Capacity= 251.047 cfs

0.00' x 4.00' deep channel, n= 0.140 Earth, dense brush, high stage  
 Side Slope Z-value= 3.3 10.0 '/' Top Width= 53.20'  
 Length= 137.0' Slope= 0.0200 '/'  
 Inlet Invert= 137.00', Outlet Invert= 134.26'



**Reach 6R: Creek Basin**

Hydrograph



**Blaine Street Predeveloped 2020-018**

Type IA 24-hr 50yr Rainfall=4.20"

Prepared by HBH Consulting Engineers

Printed 10/14/2020

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Page 22

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points

Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 1S: Predevelopment**

Runoff Area=42,062 sf 20.34% Impervious Runoff Depth=2.38"  
Flow Length=540' Tc=27.1 min CN=77/98 Runoff=0.390 cfs 8,326 cf

**Subcatchment 2S: Forest Pre & Post**

Runoff Area=14,020 sf 0.00% Impervious Runoff Depth=2.46"  
Flow Length=237' Tc=14.1 min CN=83/0 Runoff=0.172 cfs 2,875 cf

**Reach 6R: Creek Basin**

Avg. Flow Depth=0.40' Max Vel=0.51 fps Inflow=0.560 cfs 11,201 cf  
n=0.140 L=137.0' S=0.0200 ' Capacity=251.047 cfs Outflow=0.550 cfs 11,201 cf

**Summary for Subcatchment 1S: Predevelopment**

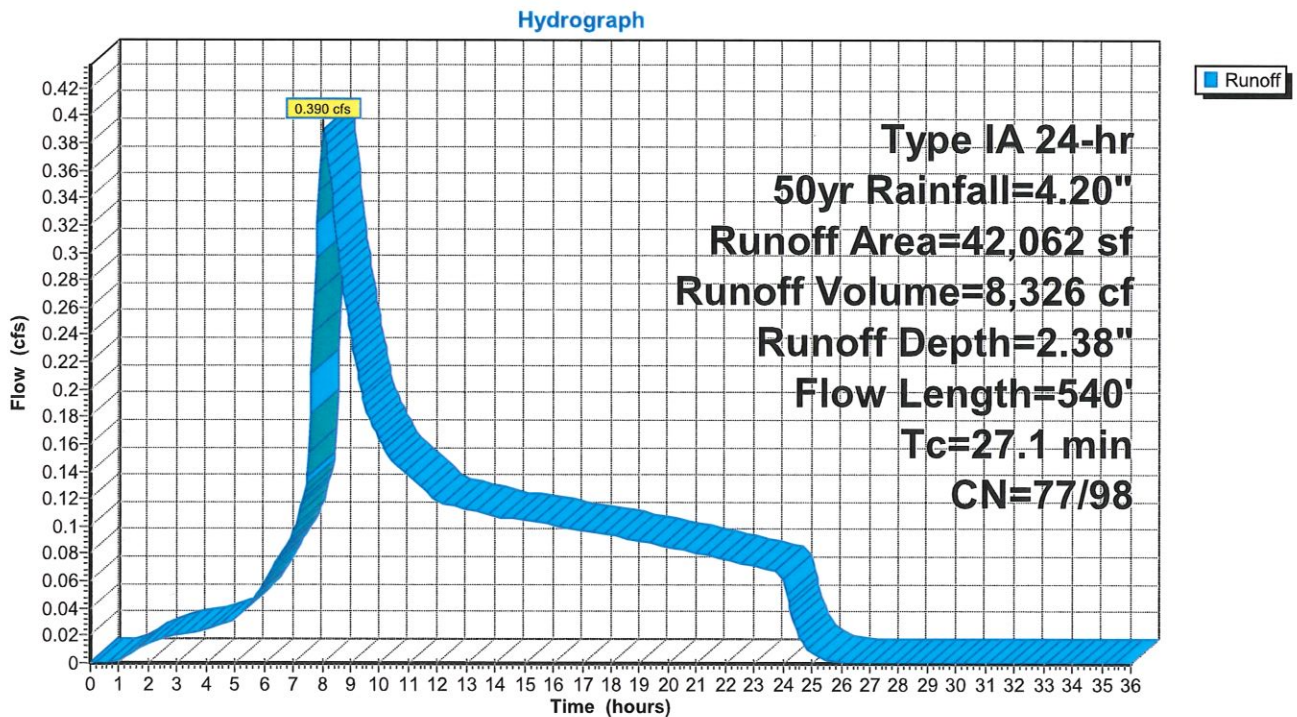
Runoff = 0.390 cfs @ 8.06 hrs, Volume= 8,326 cf, Depth= 2.38"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 50yr Rainfall=4.20"

	Area (sf)	CN	Description
*	33,508	77	>75% Grass cover, Good, HSG C/D
*	8,554	98	Asphalt/Concrete/Roofs, HSG C/D
	42,062	81	Weighted Average
	33,508	77	79.66% Pervious Area
	8,554	98	20.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.8	150	0.0100	0.13		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
2.2	150	0.0266	1.14		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
4.7	200	0.0800	0.71		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
27.1	540	Total			

**Subcatchment 1S: Predevelopment**





**Blaine Street Predeveloped 2020-018**

Prepared by HBH Consulting Engineers

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Type IA 24-hr 50yr Rainfall=4.20"

Printed 10/14/2020

Page 24

**Summary for Subcatchment 2S: Forest Pre & Post**

Runoff = 0.172 cfs @ 8.01 hrs, Volume= 2,875 cf, Depth= 2.46"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 50yr Rainfall=4.20"

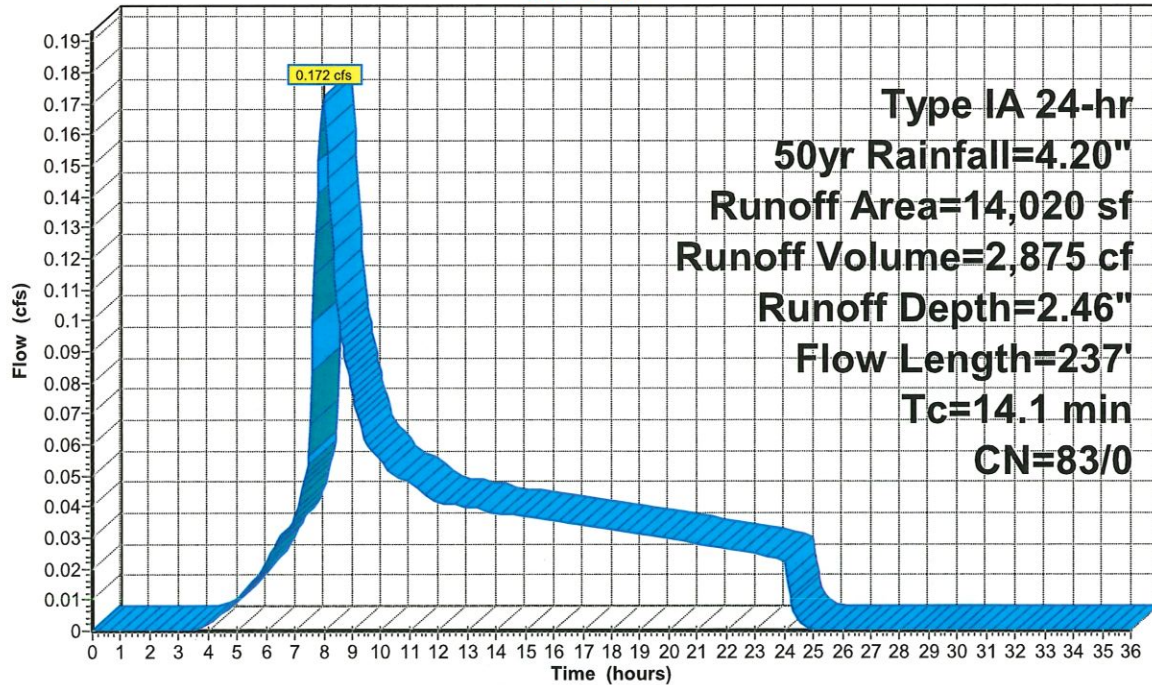
Area (sf)	CN	Description
14,020	83	Woods, Poor, HSG D
14,020	83	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	60	0.0200	0.14		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
6.5	137	0.0200	0.35		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
14.1	237	Total			

**Subcatchment 2S: Forest Pre & Post**

Hydrograph



**Summary for Reach 6R: Creek Basin**

Inflow Area = 56,082 sf, 15.25% Impervious, Inflow Depth = 2.40" for 50yr event  
 Inflow = 0.560 cfs @ 8.04 hrs, Volume= 11,201 cf  
 Outflow = 0.550 cfs @ 8.10 hrs, Volume= 11,201 cf, Atten= 2%, Lag= 3.6 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.51 fps, Min. Travel Time= 4.5 min  
 Avg. Velocity = 0.31 fps, Avg. Travel Time= 7.4 min

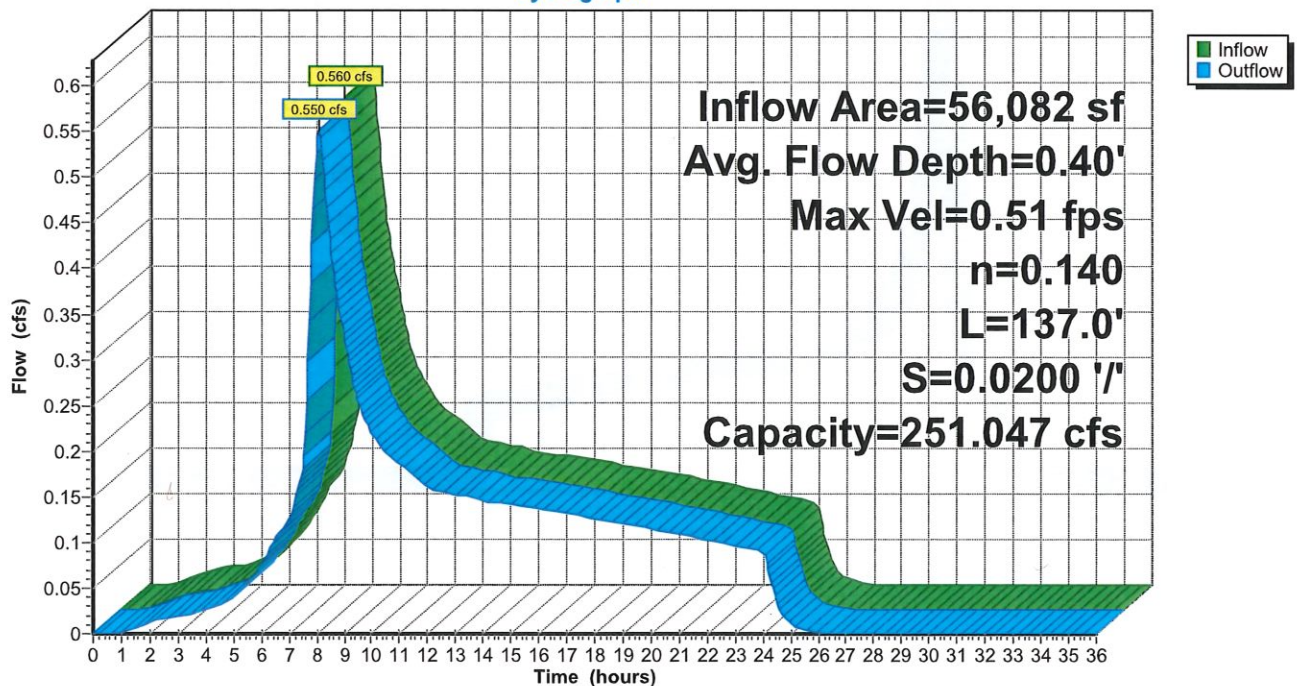
Peak Storage= 148 cf @ 8.10 hrs  
 Average Depth at Peak Storage= 0.40'  
 Bank-Full Depth= 4.00' Flow Area= 106.4 sf, Capacity= 251.047 cfs

0.00' x 4.00' deep channel, n= 0.140 Earth, dense brush, high stage  
 Side Slope Z-value= 3.3 10.0 '/' Top Width= 53.20'  
 Length= 137.0' Slope= 0.0200 '/'  
 Inlet Invert= 137.00', Outlet Invert= 134.26'



**Reach 6R: Creek Basin**

Hydrograph



**Blaine Street Predeveloped 2020-018**

Type IA 24-hr 100yr Rainfall=4.50"

Prepared by HBH Consulting Engineers

Printed 10/14/2020

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Page 26

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points

Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 1S: Predevelopment**

Runoff Area=42,062 sf 20.34% Impervious Runoff Depth=2.63"  
Flow Length=540' Tc=27.1 min CN=77/98 Runoff=0.437 cfs 9,212 cf

**Subcatchment 2S: Forest Pre & Post**

Runoff Area=14,020 sf 0.00% Impervious Runoff Depth=2.73"  
Flow Length=237' Tc=14.1 min CN=83/0 Runoff=0.193 cfs 3,184 cf

**Reach 6R: Creek Basin**

Avg. Flow Depth=0.42' Max Vel=0.53 fps Inflow=0.628 cfs 12,397 cf  
n=0.140 L=137.0' S=0.0200 '/ Capacity=251.047 cfs Outflow=0.617 cfs 12,397 cf



**Summary for Subcatchment 1S: Predevelopment**

Runoff = 0.437 cfs @ 8.05 hrs, Volume= 9,212 cf, Depth= 2.63"

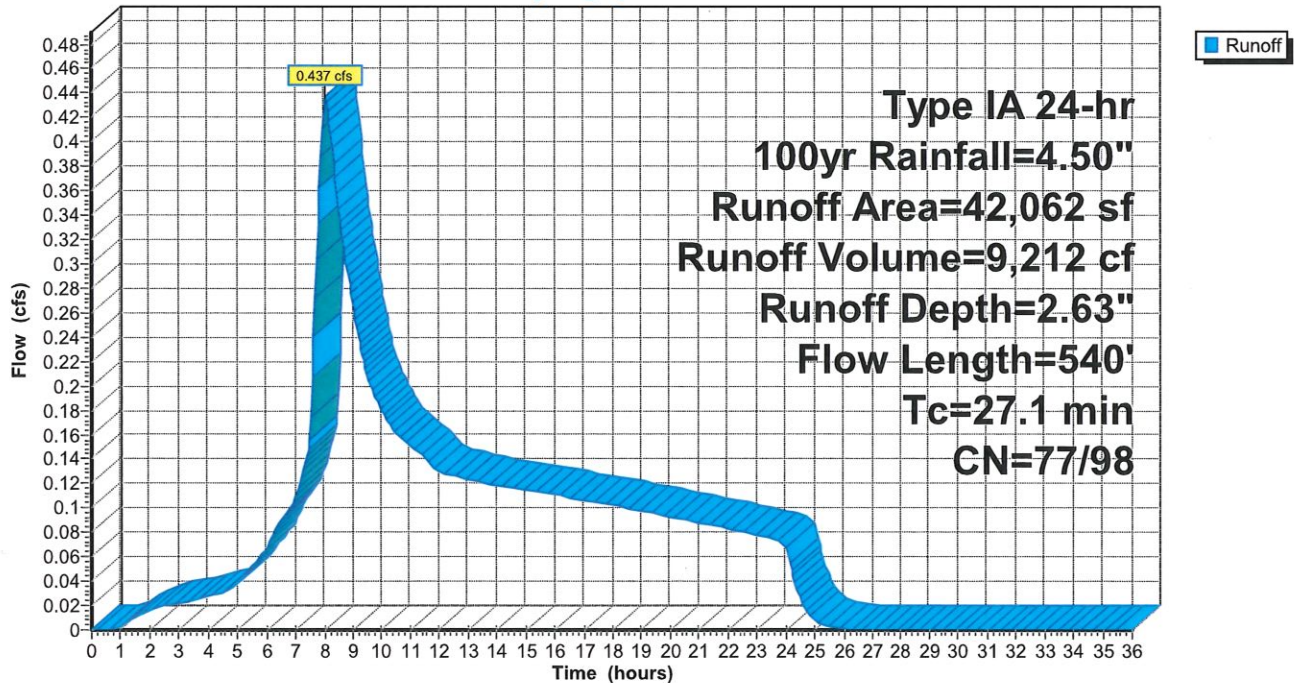
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 100yr Rainfall=4.50"

Area (sf)	CN	Description
* 33,508	77	>75% Grass cover, Good, HSG C/D
* 8,554	98	Asphalt/Concrete/Roofs, HSG C/D
42,062	81	Weighted Average
33,508	77	79.66% Pervious Area
8,554	98	20.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.8	150	0.0100	0.13		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
2.2	150	0.0266	1.14		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
4.7	200	0.0800	0.71		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
27.1	540	Total			

**Subcatchment 1S: Predevelopment**

Hydrograph



**Blaine Street Predeveloped 2020-018**

Prepared by HBH Consulting Engineers

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Type IA 24-hr 100yr Rainfall=4.50"

Printed 10/14/2020

Page 28

**Summary for Subcatchment 2S: Forest Pre & Post**

Runoff = 0.193 cfs @ 8.01 hrs, Volume= 3,184 cf, Depth= 2.73"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 100yr Rainfall=4.50"

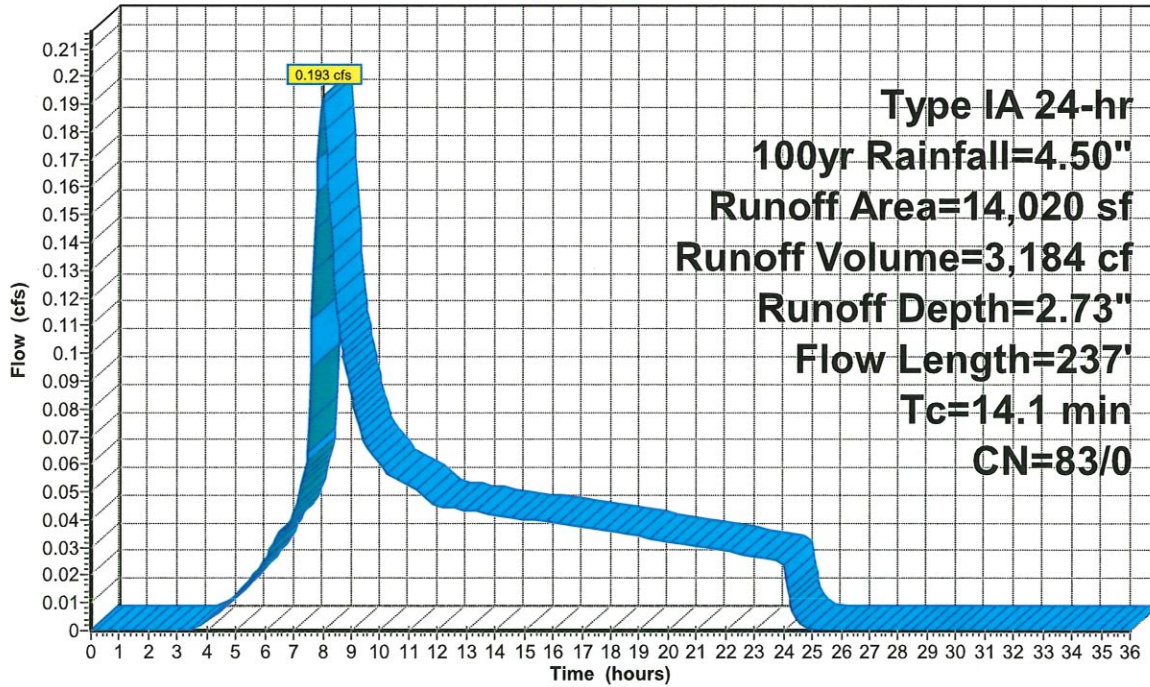
Area (sf)	CN	Description
14,020	83	Woods, Poor, HSG D
14,020	83	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	60	0.0200	0.14		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
6.5	137	0.0200	0.35		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
14.1	237	Total			

**Subcatchment 2S: Forest Pre & Post**

Hydrograph





**Summary for Reach 6R: Creek Basin**

Inflow Area = 56,082 sf, 15.25% Impervious, Inflow Depth = 2.65" for 100yr event  
 Inflow = 0.628 cfs @ 8.04 hrs, Volume= 12,397 cf  
 Outflow = 0.617 cfs @ 8.09 hrs, Volume= 12,397 cf, Atten= 2%, Lag= 3.4 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.53 fps, Min. Travel Time= 4.3 min  
 Avg. Velocity = 0.31 fps, Avg. Travel Time= 7.3 min

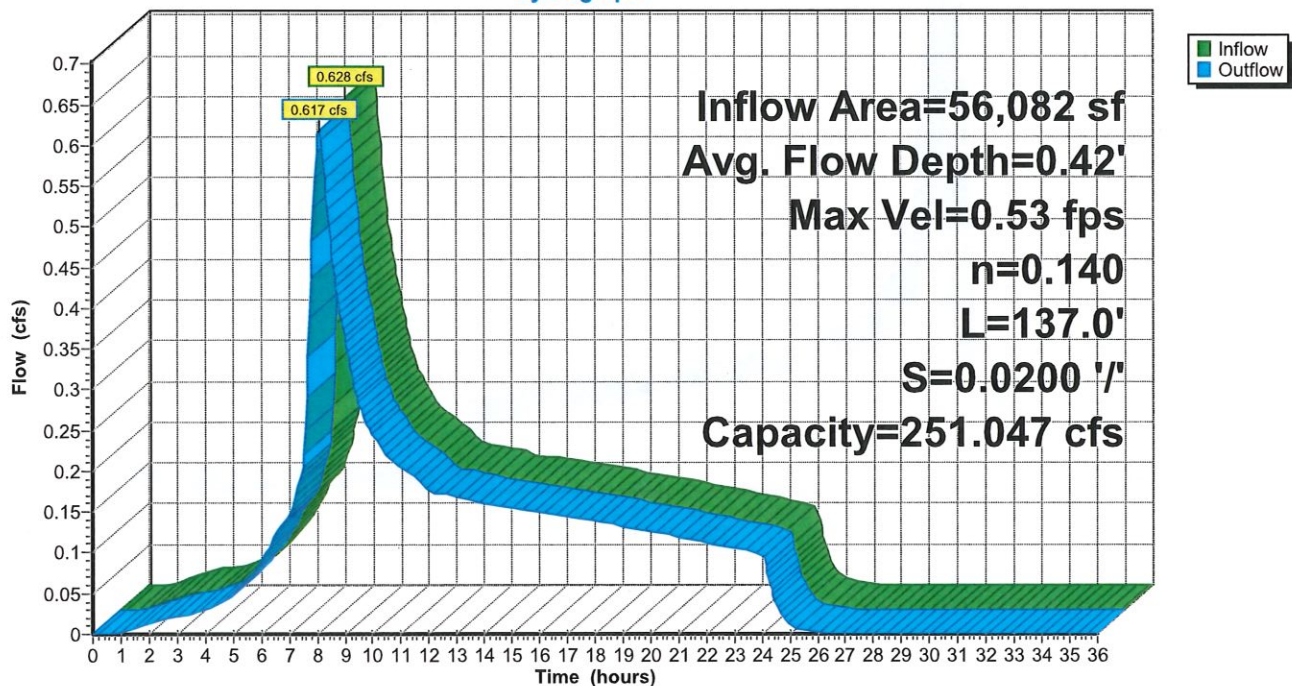
Peak Storage= 161 cf @ 8.09 hrs  
 Average Depth at Peak Storage= 0.42'  
 Bank-Full Depth= 4.00' Flow Area= 106.4 sf, Capacity= 251.047 cfs

0.00' x 4.00' deep channel, n= 0.140 Earth, dense brush, high stage  
 Side Slope Z-value= 3.3 10.0 '/' Top Width= 53.20'  
 Length= 137.0' Slope= 0.0200 '/'  
 Inlet Invert= 137.00', Outlet Invert= 134.26'



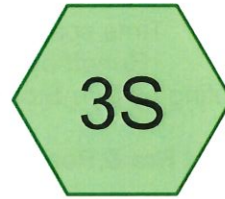
**Reach 6R: Creek Basin**

Hydrograph



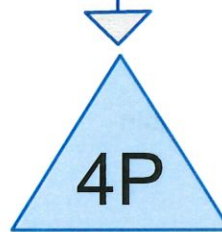


# ATTACHMENT C

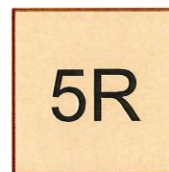


Forest Pre & Post

Post-Development



Extended Dry Basin



Creek Basin

12" Outfall



**Blaine Street Post-developed 2020-018**

Type IA 24-hr 1/2 of 2 year Rainfall=1.25"

Prepared by HBH Consulting Engineers

Printed 10/14/2020

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Page 2

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points

Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 2S: Forest Pre & Post** Runoff Area=14,020 sf 0.00% Impervious Runoff Depth=0.24"  
Flow Length=237' Tc=14.1 min CN=83/0 Runoff=0.006 cfs 286 cf

**Subcatchment 3S: Post-Development** Runoff Area=42,062 sf 60.67% Impervious Runoff Depth=0.67"  
Flow Length=540' Tc=27.1 min CN=77/98 Runoff=0.117 cfs 2,361 cf

**Reach 5R: 12" Outfall** Avg. Flow Depth=0.03' Max Vel=4.48 fps Inflow=0.026 cfs 1,639 cf  
12.0" Round Pipe n=0.012 L=86.6' S=0.2740 '/' Capacity=20.204 cfs Outflow=0.026 cfs 1,638 cf

**Reach 6R: Creek Basin** Avg. Flow Depth=0.13' Max Vel=0.25 fps Inflow=0.031 cfs 1,924 cf  
n=0.140 L=137.0' S=0.0200 '/' Capacity=251.047 cfs Outflow=0.031 cfs 1,917 cf

**Pond 4P: Extended Dry Basin** Peak Elev=161.18' Storage=1,219 cf Inflow=0.117 cfs 2,361 cf  
Outflow=0.026 cfs 1,639 cf

**Summary for Subcatchment 2S: Forest Pre & Post**

Runoff = 0.006 cfs @ 8.26 hrs, Volume= 286 cf, Depth= 0.24"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Type IA 24-hr 1/2 of 2 year Rainfall=1.25"

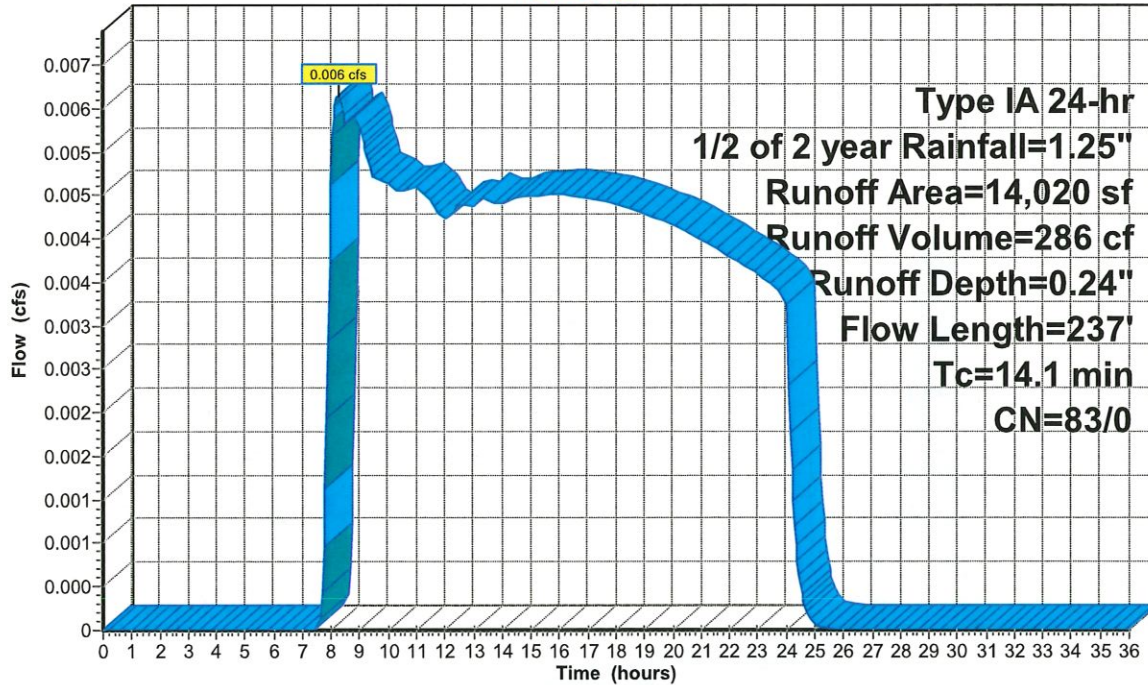
Area (sf)	CN	Description
14,020	83	Woods, Poor, HSG D
14,020	83	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	60	0.0200	0.14		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
6.5	137	0.0200	0.35		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
14.1	237	Total			

**Subcatchment 2S: Forest Pre & Post**

Hydrograph





**Summary for Subcatchment 3S: Post-Development**

Runoff = 0.117 cfs @ 8.04 hrs, Volume= 2,361 cf, Depth= 0.67"

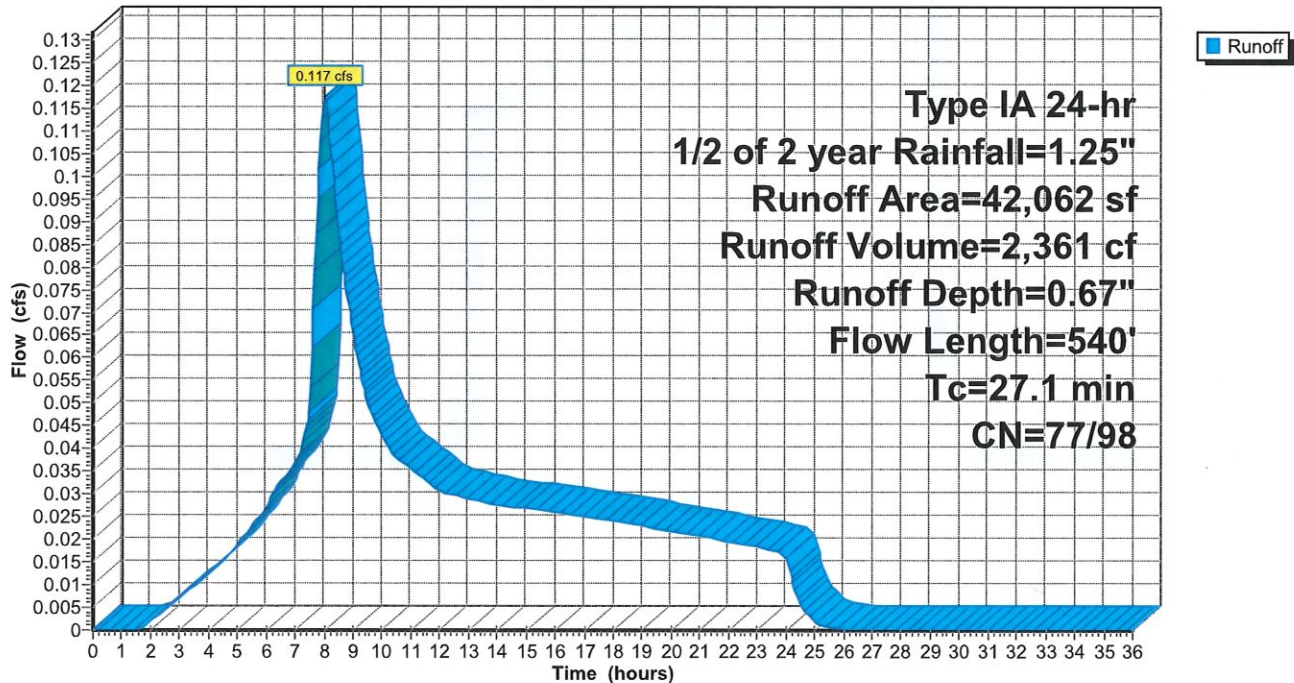
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 1/2 of 2 year Rainfall=1.25"

Area (sf)	CN	Description
* 16,543	77	>75% Grass cover, Good, HSG C/D
* 25,519	98	Asphalt/Concrete/Roofs, HSG C/D
42,062	90	Weighted Average
16,543	77	39.33% Pervious Area
25,519	98	60.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.8	150	0.0100	0.13		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
2.2	150	0.0266	1.14		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
4.7	200	0.0800	0.71		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
27.1	540	Total			

**Subcatchment 3S: Post-Development**

Hydrograph



Summary for Reach 5R: 12" Outfall

Inflow Area = 42,062 sf, 60.67% Impervious, Inflow Depth > 0.47" for 1/2 of 2 year event  
 Inflow = 0.026 cfs @ 16.09 hrs, Volume= 1,639 cf  
 Outflow = 0.026 cfs @ 16.10 hrs, Volume= 1,638 cf, Atten= 0%, Lag= 0.2 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 4.48 fps, Min. Travel Time= 0.3 min  
 Avg. Velocity = 3.77 fps, Avg. Travel Time= 0.4 min

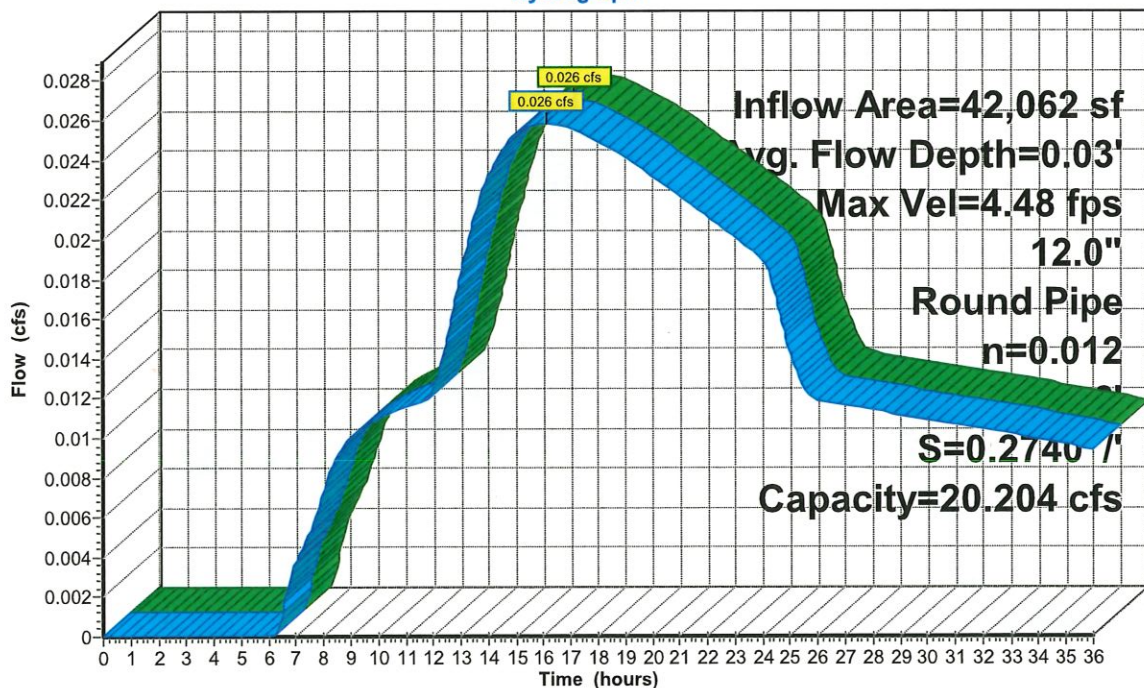
Peak Storage= 0 cf @ 16.10 hrs  
 Average Depth at Peak Storage= 0.03'  
 Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 20.204 cfs

12.0" Round Pipe  
 n= 0.012  
 Length= 86.6' Slope= 0.2740 '/'  
 Inlet Invert= 159.23', Outlet Invert= 135.50'



Reach 5R: 12" Outfall

Hydrograph



Inflow  
 Outflow



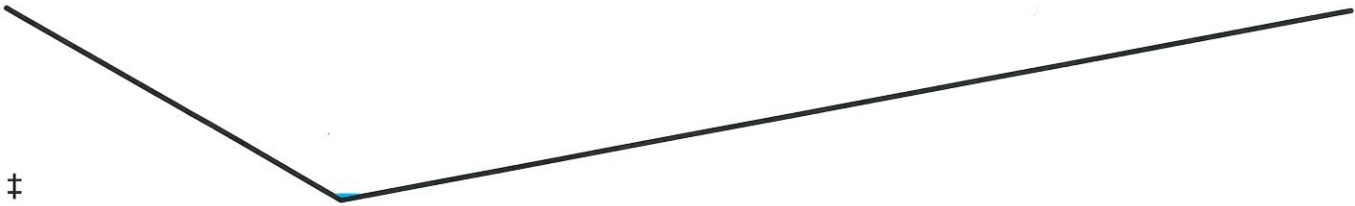
**Summary for Reach 6R: Creek Basin**

Inflow Area = 56,082 sf, 45.50% Impervious, Inflow Depth > 0.41" for 1/2 of 2 year event  
 Inflow = 0.031 cfs @ 16.08 hrs, Volume= 1,924 cf  
 Outflow = 0.031 cfs @ 16.20 hrs, Volume= 1,917 cf, Atten= 0%, Lag= 7.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.25 fps, Min. Travel Time= 9.1 min  
 Avg. Velocity = 0.22 fps, Avg. Travel Time= 10.6 min

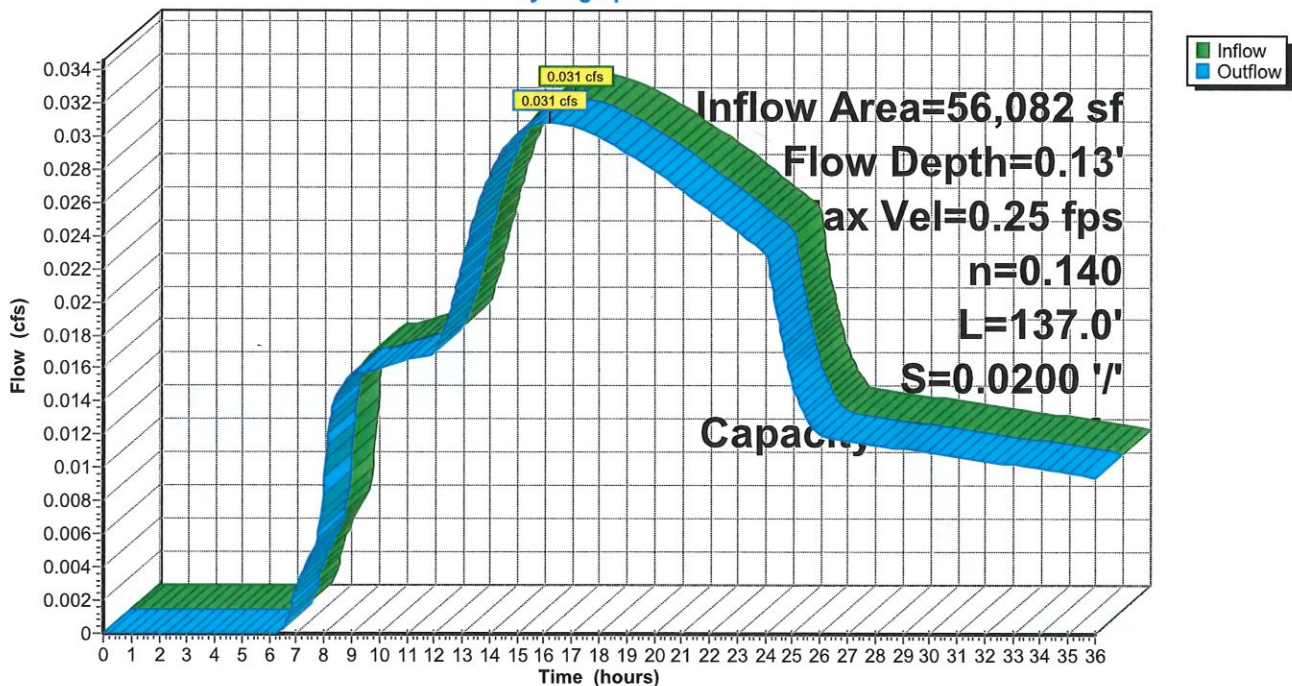
Peak Storage= 17 cf @ 16.20 hrs  
 Average Depth at Peak Storage= 0.13'  
 Bank-Full Depth= 4.00' Flow Area= 106.4 sf, Capacity= 251.047 cfs

0.00' x 4.00' deep channel, n= 0.140 Earth, dense brush, high stage  
 Side Slope Z-value= 3.3 10.0 '/' Top Width= 53.20'  
 Length= 137.0' Slope= 0.0200 '/'  
 Inlet Invert= 137.00', Outlet Invert= 134.26'



**Reach 6R: Creek Basin**

Hydrograph





**Summary for Pond 4P: Extended Dry Basin**

Inflow Area = 42,062 sf, 60.67% Impervious, Inflow Depth = 0.67" for 1/2 of 2 year event  
 Inflow = 0.117 cfs @ 8.04 hrs, Volume= 2,361 cf  
 Outflow = 0.026 cfs @ 16.09 hrs, Volume= 1,639 cf, Atten= 78%, Lag= 483.3 min  
 Primary = 0.026 cfs @ 16.09 hrs, Volume= 1,639 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Peak Elev= 161.18' @ 16.09 hrs Surf.Area= 1,434 sf Storage= 1,219 cf

Plug-Flow detention time= 674.3 min calculated for 1,636 cf (69% of inflow)  
 Center-of-Mass det. time= 487.4 min ( 1,233.8 - 746.4 )

Volume	Invert	Avail.Storage	Storage Description
#1	159.83'	6,315 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
159.83	391	0	0
160.83	1,142	767	767
161.83	1,972	1,557	2,324
162.83	2,884	2,428	4,752
163.33	3,370	1,564	6,315

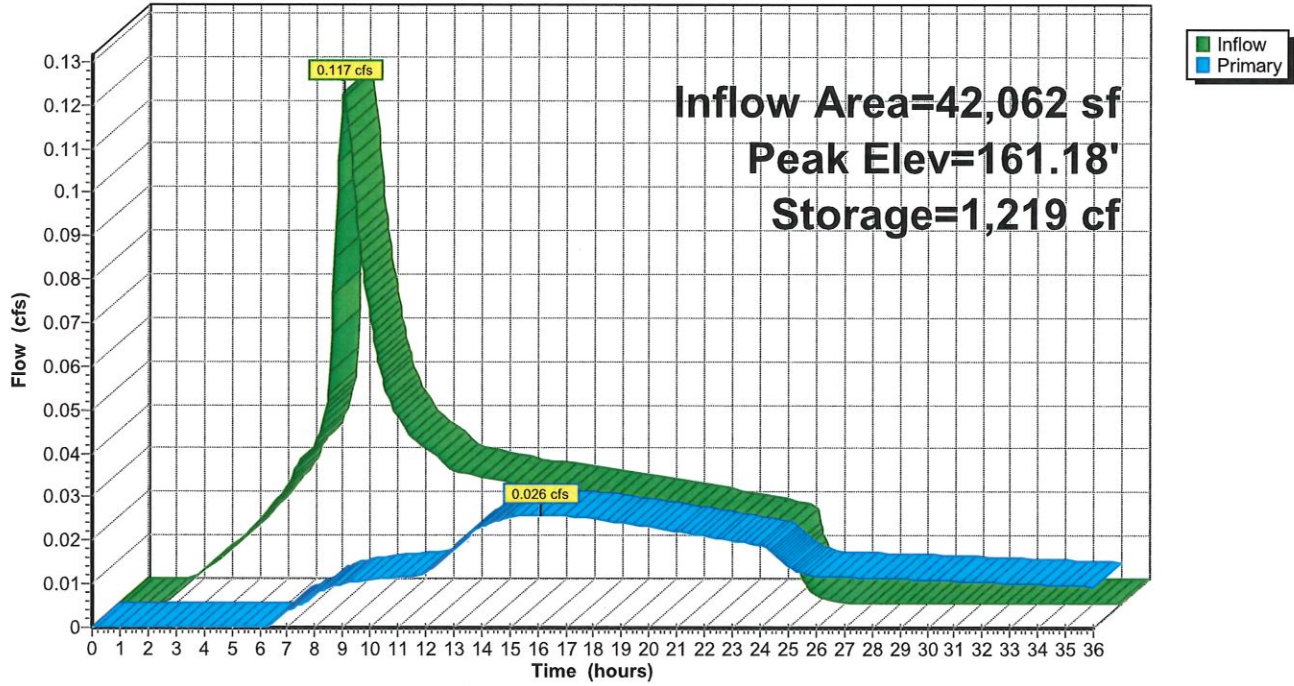
Device	Routing	Invert	Outlet Devices
#1	Primary	160.23'	<b>0.7" Vert. WQ Orifice</b> C= 0.600
#2	Primary	161.10'	<b>3.0" Vert. 1/2 of 2 Year Orifice</b> C= 0.600
#3	Primary	161.18'	<b>2.3" Vert. 2-Yr Orifice</b> C= 0.600
#4	Primary	161.42'	<b>1.5" Vert. 5-YR Orifice</b> C= 0.600
#5	Primary	161.83'	<b>24.0" x 24.0" Horiz. 50-Yr Overflow</b> C= 0.600 Limited to weir flow at low heads
#6	Primary	162.83'	<b>3.0' long Sharp-Crested Rectangular Weir</b> 2 End Contraction(s) 0.5' Crest Height

**Primary OutFlow** Max=0.026 cfs @ 16.09 hrs HW=161.18' TW=159.26' (Dynamic Tailwater)

- 1=WQ Orifice (Orifice Controls 0.012 cfs @ 4.62 fps)
- 2=1/2 of 2 Year Orifice (Orifice Controls 0.013 cfs @ 0.97 fps)
- 3=2-Yr Orifice (Orifice Controls 0.000 cfs @ 0.13 fps)
- 4=5-YR Orifice ( Controls 0.000 cfs)
- 5=50-Yr Overflow ( Controls 0.000 cfs)
- 6=Sharp-Crested Rectangular Weir ( Controls 0.000 cfs)

### Pond 4P: Extended Dry Basin

Hydrograph



**Blaine Street Post-developed 2020-018**

Type IA 24-hr 2yr Rainfall=2.50"

Prepared by HBH Consulting Engineers

Printed 10/14/2020

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Page 9

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points

Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 2S: Forest Pre & Post**      Runoff Area=14,020 sf   0.00% Impervious   Runoff Depth=1.06"  
Flow Length=237'   Tc=14.1 min   CN=83/0   Runoff=0.064 cfs   1,234 cf

**Subcatchment 3S: Post-Development**      Runoff Area=42,062 sf   60.67% Impervious   Runoff Depth=1.67"  
Flow Length=540'   Tc=27.1 min   CN=77/98   Runoff=0.285 cfs   5,850 cf

**Reach 5R: 12" Outfall**      Avg. Flow Depth=0.06'   Max Vel=7.86 fps   Inflow=0.170 cfs   5,092 cf  
12.0" Round Pipe   n=0.012   L=86.6'   S=0.2740 '/'   Capacity=20.204 cfs   Outflow=0.170 cfs   5,092 cf

**Reach 6R: Creek Basin**      Avg. Flow Depth=0.28'   Max Vel=0.40 fps   Inflow=0.204 cfs   6,326 cf  
n=0.140   L=137.0'   S=0.0200 '/'   Capacity=251.047 cfs   Outflow=0.204 cfs   6,319 cf

**Pond 4P: Extended Dry Basin**      Peak Elev=161.42'   Storage=1,581 cf   Inflow=0.285 cfs   5,850 cf  
Outflow=0.170 cfs   5,092 cf



**Summary for Subcatchment 2S: Forest Pre & Post**

Runoff = 0.064 cfs @ 8.02 hrs, Volume= 1,234 cf, Depth= 1.06"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 2yr Rainfall=2.50"

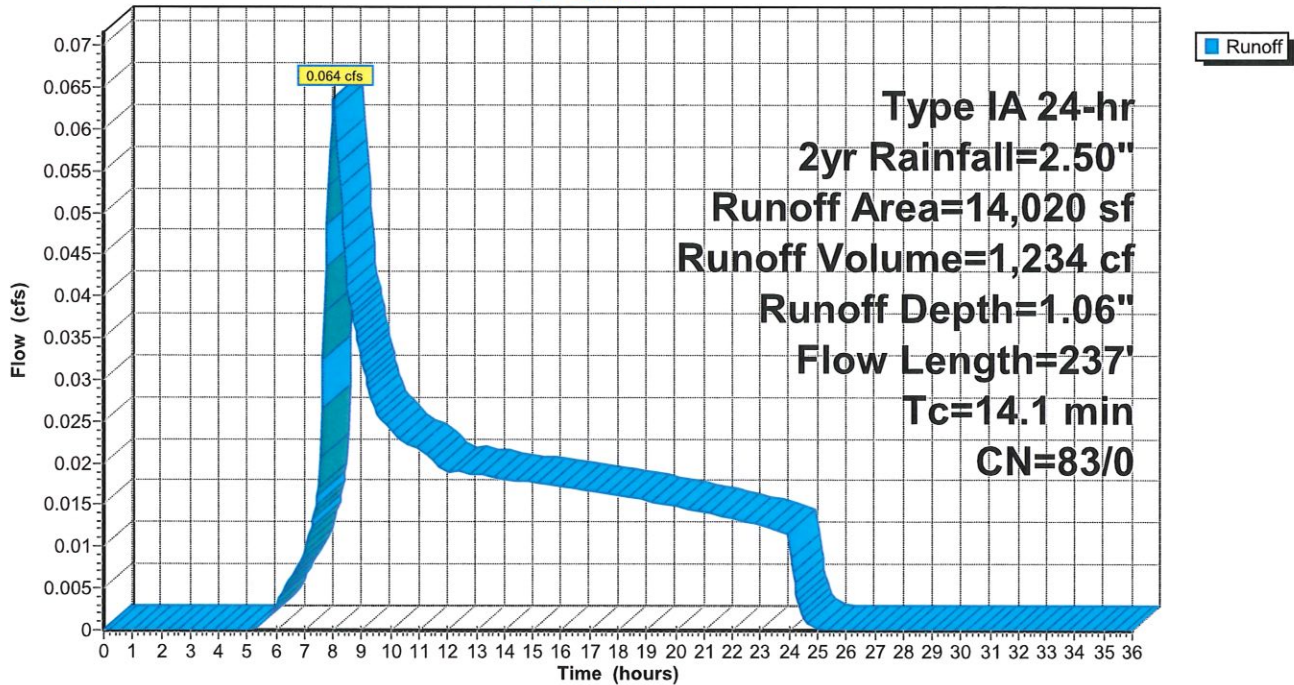
Area (sf)	CN	Description
14,020	83	Woods, Poor, HSG D
14,020	83	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	60	0.0200	0.14		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
6.5	137	0.0200	0.35		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
14.1	237	Total			

**Subcatchment 2S: Forest Pre & Post**

Hydrograph



**Summary for Subcatchment 3S: Post-Development**

Runoff = 0.285 cfs @ 8.04 hrs, Volume= 5,850 cf, Depth= 1.67"

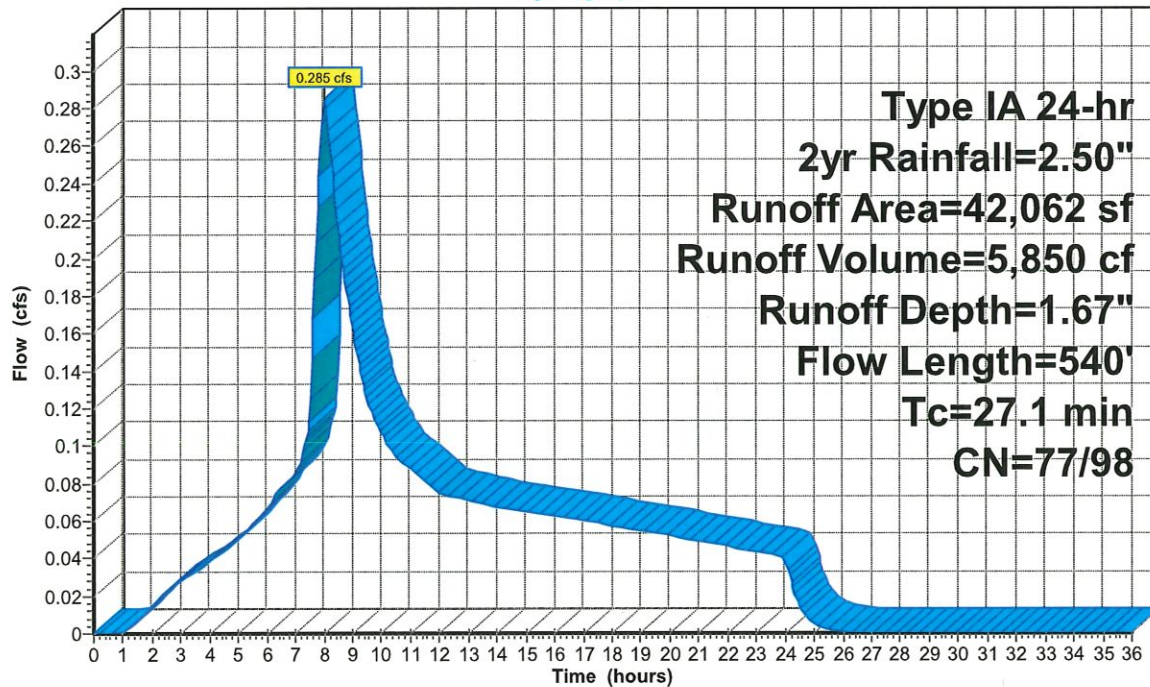
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 2yr Rainfall=2.50"

Area (sf)	CN	Description
* 16,543	77	>75% Grass cover, Good, HSG C/D
* 25,519	98	Asphalt/Concrete/Roofs, HSG C/D
42,062	90	Weighted Average
16,543	77	39.33% Pervious Area
25,519	98	60.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.8	150	0.0100	0.13		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
2.2	150	0.0266	1.14		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
4.7	200	0.0800	0.71		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
27.1	540	Total			

**Subcatchment 3S: Post-Development**

Hydrograph



Runoff



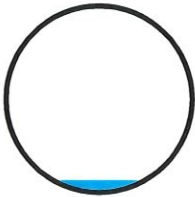
**Summary for Reach 5R: 12" Outfall**

Inflow Area = 42,062 sf, 60.67% Impervious, Inflow Depth > 1.45" for 2yr event  
 Inflow = 0.170 cfs @ 8.94 hrs, Volume= 5,092 cf  
 Outflow = 0.170 cfs @ 8.94 hrs, Volume= 5,092 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 7.86 fps, Min. Travel Time= 0.2 min  
 Avg. Velocity = 4.79 fps, Avg. Travel Time= 0.3 min

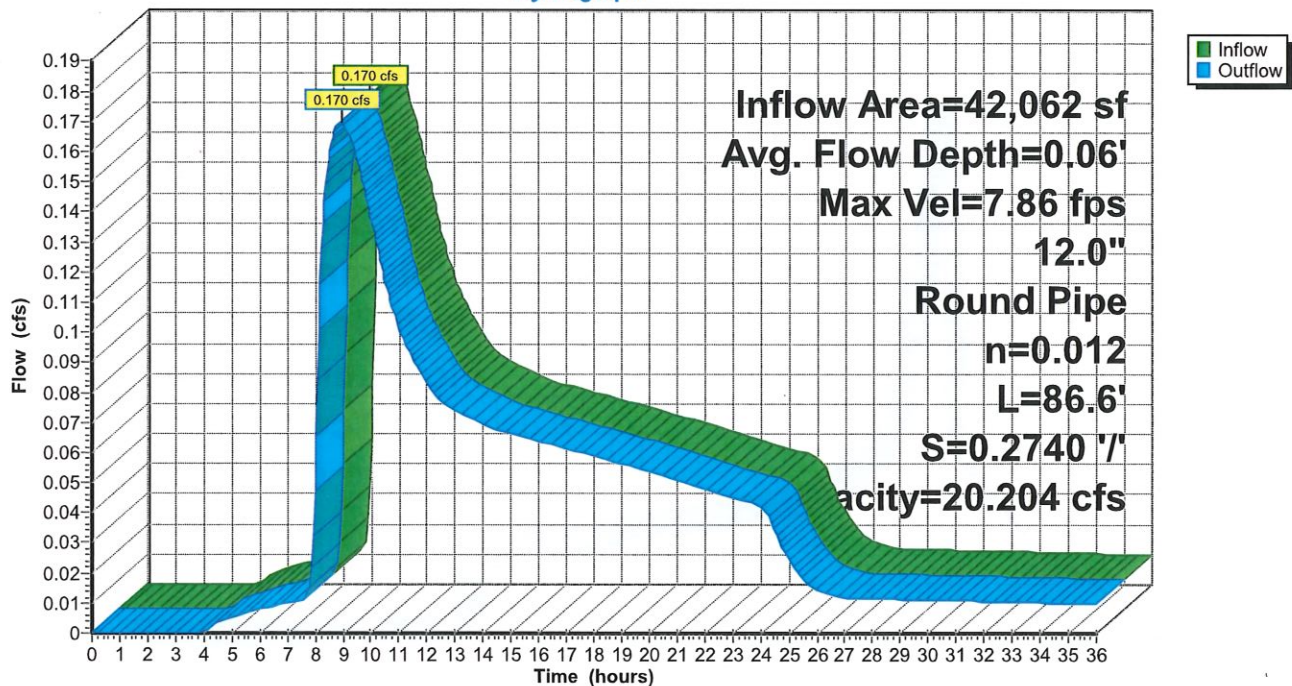
Peak Storage= 2 cf @ 8.94 hrs  
 Average Depth at Peak Storage= 0.06'  
 Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 20.204 cfs

12.0" Round Pipe  
 n= 0.012  
 Length= 86.6' Slope= 0.2740 '/'  
 Inlet Invert= 159.23', Outlet Invert= 135.50'



**Reach 5R: 12" Outfall**

Hydrograph





**Summary for Reach 6R: Creek Basin**

Inflow Area = 56,082 sf, 45.50% Impervious, Inflow Depth > 1.35" for 2yr event  
 Inflow = 0.204 cfs @ 8.80 hrs, Volume= 6,326 cf  
 Outflow = 0.204 cfs @ 8.88 hrs, Volume= 6,319 cf, Atten= 0%, Lag= 4.6 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.40 fps, Min. Travel Time= 5.7 min  
 Avg. Velocity = 0.26 fps, Avg. Travel Time= 8.6 min

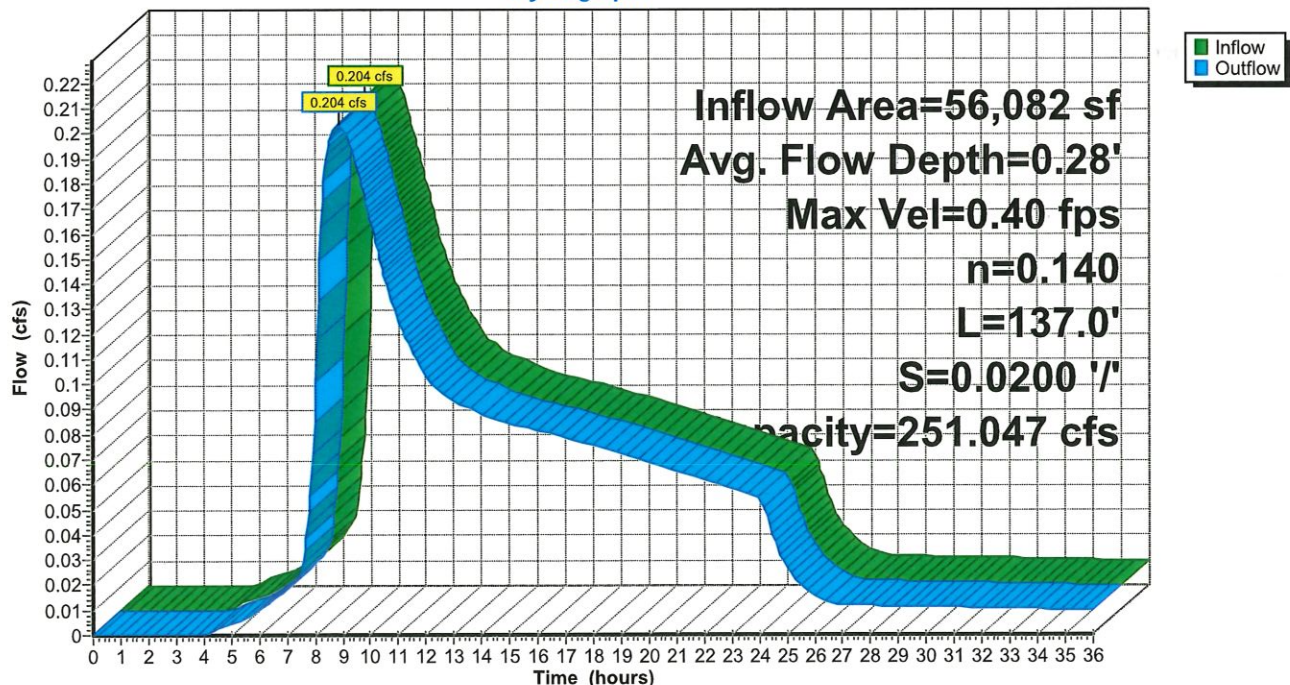
Peak Storage= 70 cf @ 8.88 hrs  
 Average Depth at Peak Storage= 0.28'  
 Bank-Full Depth= 4.00' Flow Area= 106.4 sf, Capacity= 251.047 cfs

0.00' x 4.00' deep channel, n= 0.140 Earth, dense brush, high stage  
 Side Slope Z-value= 3.3 10.0 '/' Top Width= 53.20'  
 Length= 137.0' Slope= 0.0200 '/'  
 Inlet Invert= 137.00', Outlet Invert= 134.26'



**Reach 6R: Creek Basin**

Hydrograph



**Summary for Pond 4P: Extended Dry Basin**

Inflow Area = 42,062 sf, 60.67% Impervious, Inflow Depth = 1.67" for 2yr event  
 Inflow = 0.285 cfs @ 8.04 hrs, Volume= 5,850 cf  
 Outflow = 0.170 cfs @ 8.94 hrs, Volume= 5,092 cf, Atten= 40%, Lag= 54.0 min  
 Primary = 0.170 cfs @ 8.94 hrs, Volume= 5,092 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Peak Elev= 161.42' @ 8.94 hrs Surf.Area= 1,630 sf Storage= 1,581 cf

Plug-Flow detention time= 300.7 min calculated for 5,085 cf (87% of inflow)  
 Center-of-Mass det. time= 213.5 min ( 944.8 - 731.3 )

Volume #1	Invert 159.83'	Avail.Storage 6,315 cf	Storage Description
<b>Custom Stage Data (Prismatic) Listed below (Recalc)</b>			

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
159.83	391	0	0
160.83	1,142	767	767
161.83	1,972	1,557	2,324
162.83	2,884	2,428	4,752
163.33	3,370	1,564	6,315

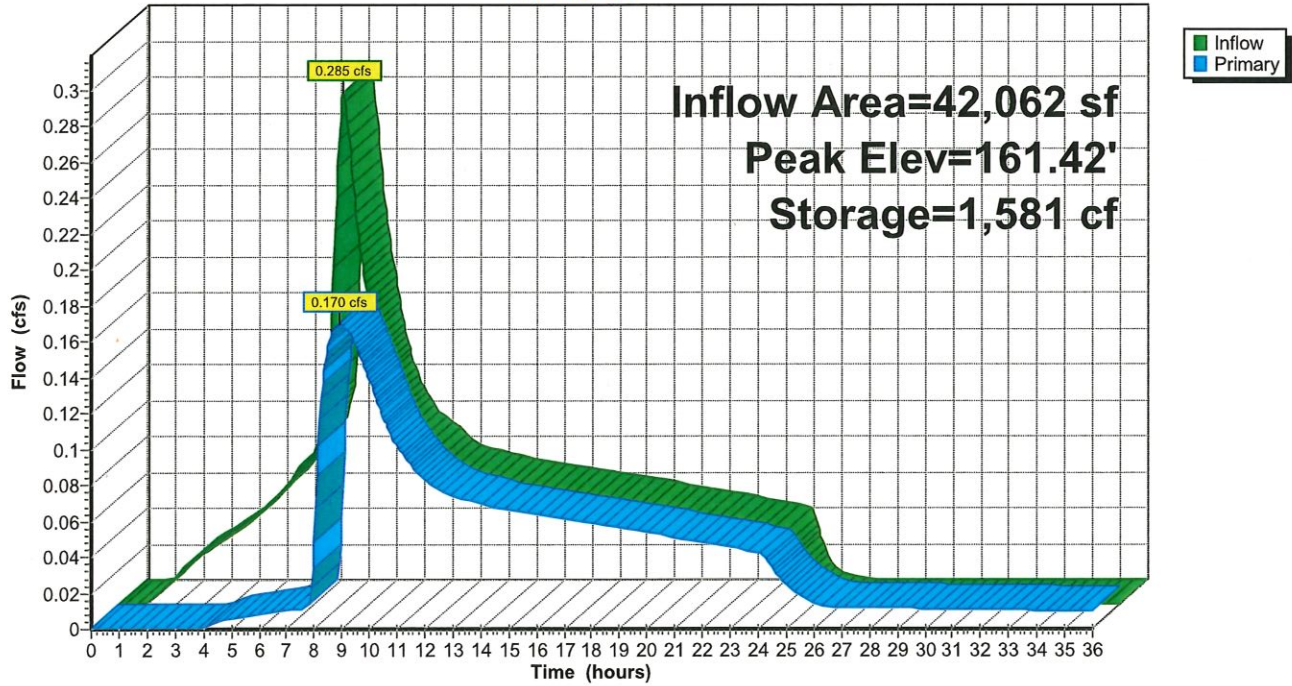
Device	Routing	Invert	Outlet Devices
#1	Primary	160.23'	<b>0.7" Vert. WQ Orifice</b> C= 0.600
#2	Primary	161.10'	<b>3.0" Vert. 1/2 of 2 Year Orifice</b> C= 0.600
#3	Primary	161.18'	<b>2.3" Vert. 2-Yr Orifice</b> C= 0.600
#4	Primary	161.42'	<b>1.5" Vert. 5-YR Orifice</b> C= 0.600
#5	Primary	161.83'	<b>24.0" x 24.0" Horiz. 50-Yr Overflow</b> C= 0.600 Limited to weir flow at low heads
#6	Primary	162.83'	<b>3.0' long Sharp-Crested Rectangular Weir</b> 2 End Contraction(s) 0.5' Crest Height

**Primary OutFlow** Max=0.170 cfs @ 8.94 hrs HW=161.42' TW=159.29' (Dynamic Tailwater)

- 1=WQ Orifice (Orifice Controls 0.014 cfs @ 5.18 fps)
- 2=1/2 of 2 Year Orifice (Orifice Controls 0.104 cfs @ 2.11 fps)
- 3=2-Yr Orifice (Orifice Controls 0.052 cfs @ 1.81 fps)
- 4=5-YR Orifice ( Controls 0.000 cfs)
- 5=50-Yr Overflow ( Controls 0.000 cfs)
- 6=Sharp-Crested Rectangular Weir ( Controls 0.000 cfs)

### Pond 4P: Extended Dry Basin

Hydrograph





**Blaine Street Post-developed 2020-018**

Type IA 24-hr 5yr Rainfall=3.00"

Prepared by HBH Consulting Engineers

Printed 10/14/2020

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Page 16

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points  
Runoff by SBUH method, Split Pervious/Imperv.  
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 2S: Forest Pre & Post** Runoff Area=14,020 sf 0.00% Impervious Runoff Depth=1.45"  
Flow Length=237' Tc=14.1 min CN=83/0 Runoff=0.094 cfs 1,690 cf

**Subcatchment 3S: Post-Development** Runoff Area=42,062 sf 60.67% Impervious Runoff Depth=2.10"  
Flow Length=540' Tc=27.1 min CN=77/98 Runoff=0.362 cfs 7,363 cf

**Reach 5R: 12" Outfall** Avg. Flow Depth=0.08' Max Vel=8.65 fps Inflow=0.233 cfs 6,600 cf  
12.0" Round Pipe n=0.012 L=86.6' S=0.2740 '/ Capacity=20.204 cfs Outflow=0.233 cfs 6,600 cf

**Reach 6R: Creek Basin** Avg. Flow Depth=0.31' Max Vel=0.43 fps Inflow=0.285 cfs 8,290 cf  
n=0.140 L=137.0' S=0.0200 '/ Capacity=251.047 cfs Outflow=0.285 cfs 8,283 cf

**Pond 4P: Extended Dry Basin** Peak Elev=161.54' Storage=1,788 cf Inflow=0.362 cfs 7,363 cf  
Outflow=0.233 cfs 6,600 cf

**Summary for Subcatchment 2S: Forest Pre & Post**

Runoff = 0.094 cfs @ 8.02 hrs, Volume= 1,690 cf, Depth= 1.45"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 5yr Rainfall=3.00"

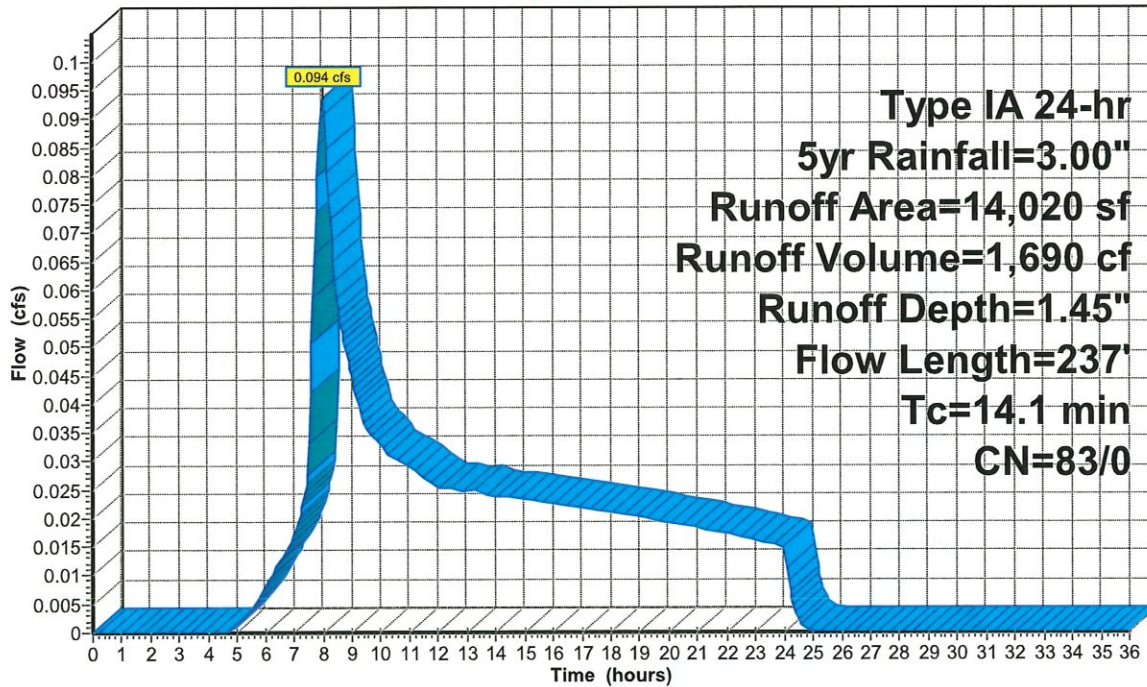
Area (sf)	CN	Description
14,020	83	Woods, Poor, HSG D
14,020	83	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	60	0.0200	0.14		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
6.5	137	0.0200	0.35		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
14.1	237	Total			

**Subcatchment 2S: Forest Pre & Post**

Hydrograph



**Summary for Subcatchment 3S: Post-Development**

Runoff = 0.362 cfs @ 8.04 hrs, Volume= 7,363 cf, Depth= 2.10"

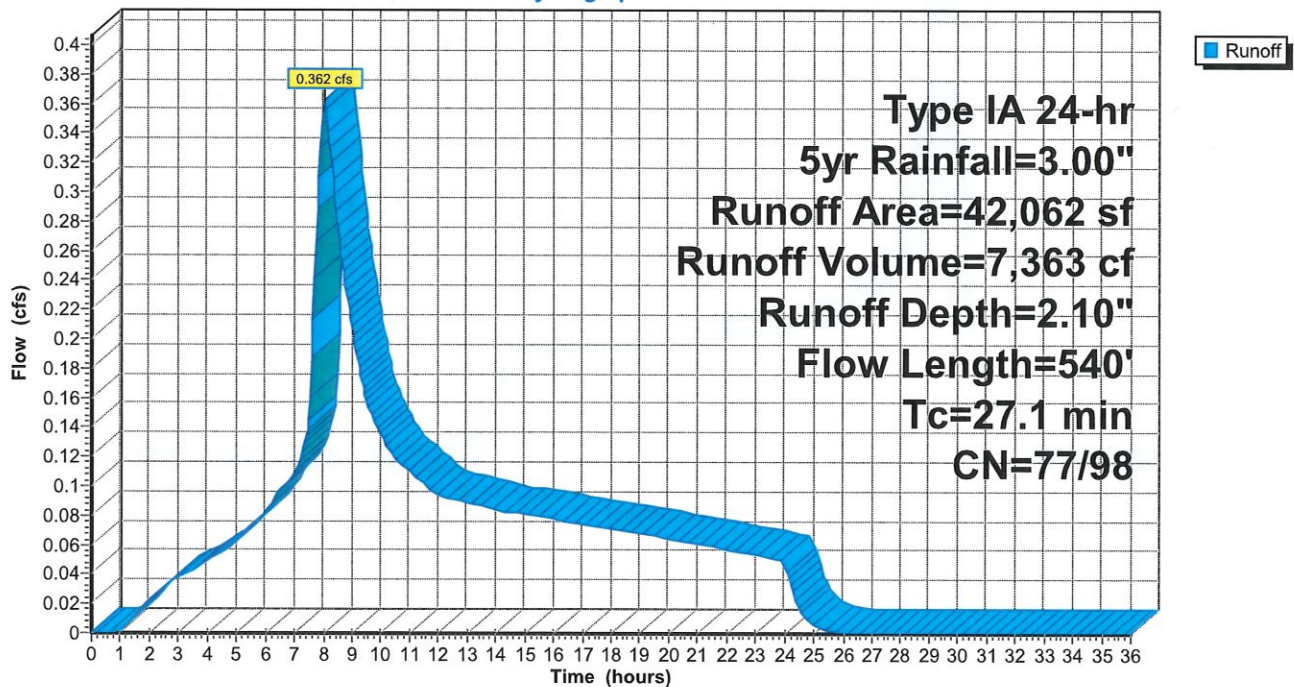
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 5yr Rainfall=3.00"

	Area (sf)	CN	Description
*	16,543	77	>75% Grass cover, Good, HSG C/D
*	25,519	98	Asphalt/Concrete/Roofs, HSG C/D
	42,062	90	Weighted Average
	16,543	77	39.33% Pervious Area
	25,519	98	60.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.8	150	0.0100	0.13		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
2.2	150	0.0266	1.14		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
4.7	200	0.0800	0.71		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
27.1	540	Total			

**Subcatchment 3S: Post-Development**

Hydrograph





**Blaine Street Post-developed 2020-018**

Type IA 24-hr 5yr Rainfall=3.00"

Prepared by HBH Consulting Engineers

Printed 10/14/2020

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Page 19

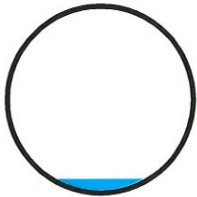
**Summary for Reach 5R: 12" Outfall**

Inflow Area = 42,062 sf, 60.67% Impervious, Inflow Depth > 1.88" for 5yr event  
 Inflow = 0.233 cfs @ 8.80 hrs, Volume= 6,600 cf  
 Outflow = 0.233 cfs @ 8.80 hrs, Volume= 6,600 cf, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 8.65 fps, Min. Travel Time= 0.2 min  
 Avg. Velocity = 5.06 fps, Avg. Travel Time= 0.3 min

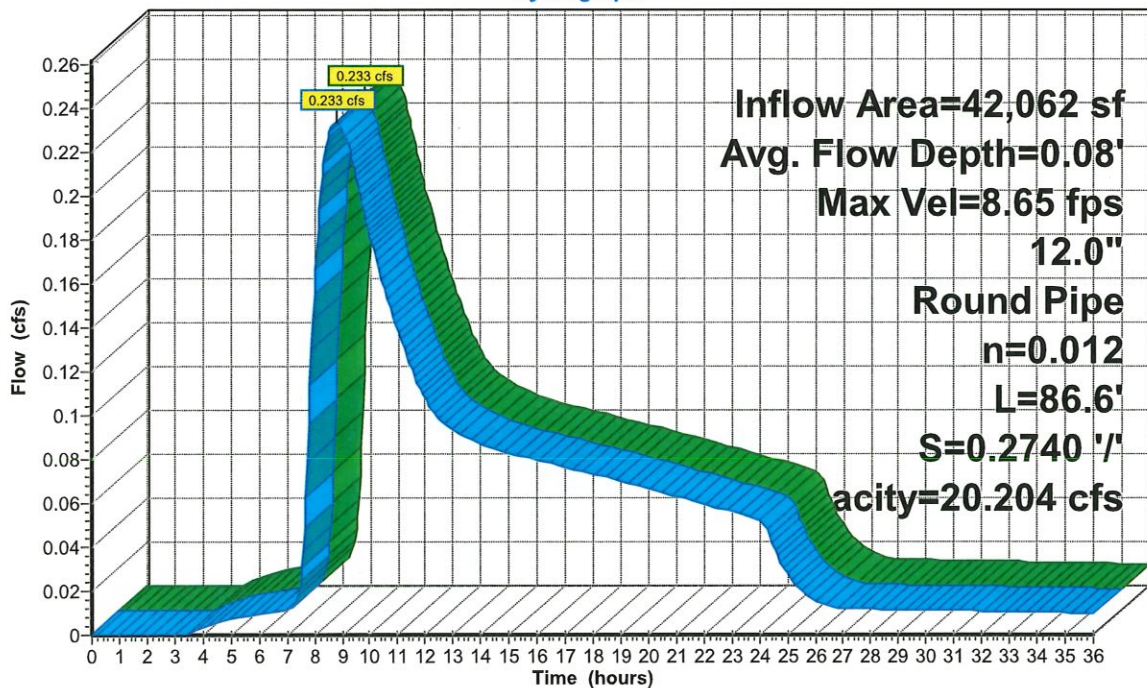
Peak Storage= 2 cf @ 8.80 hrs  
 Average Depth at Peak Storage= 0.08'  
 Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 20.204 cfs

12.0" Round Pipe  
 n= 0.012  
 Length= 86.6' Slope= 0.2740 '/'  
 Inlet Invert= 159.23', Outlet Invert= 135.50'



**Reach 5R: 12" Outfall**

Hydrograph



**Inflow Area=42,062 sf**  
**Avg. Flow Depth=0.08'**  
**Max Vel=8.65 fps**  
**12.0"**  
**Round Pipe**  
**n=0.012**  
**L=86.6'**  
**S=0.2740 '/'**  
**Capacity=20.204 cfs**

■ Inflow  
 ■ Outflow

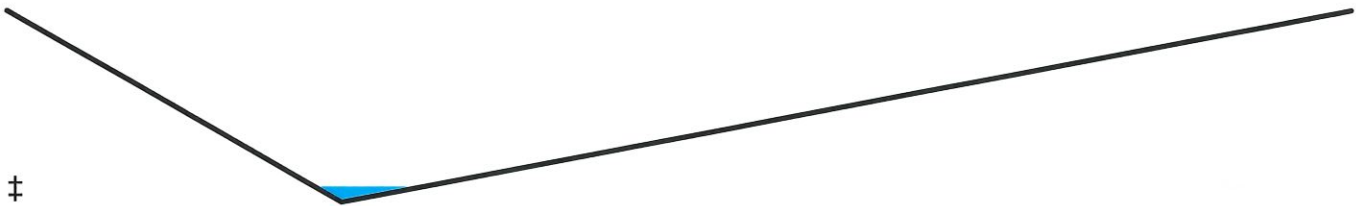
**Summary for Reach 6R: Creek Basin**

Inflow Area = 56,082 sf, 45.50% Impervious, Inflow Depth > 1.77" for 5yr event  
 Inflow = 0.285 cfs @ 8.62 hrs, Volume= 8,290 cf  
 Outflow = 0.285 cfs @ 8.68 hrs, Volume= 8,283 cf, Atten= 0%, Lag= 3.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.43 fps, Min. Travel Time= 5.3 min  
 Avg. Velocity = 0.28 fps, Avg. Travel Time= 8.3 min

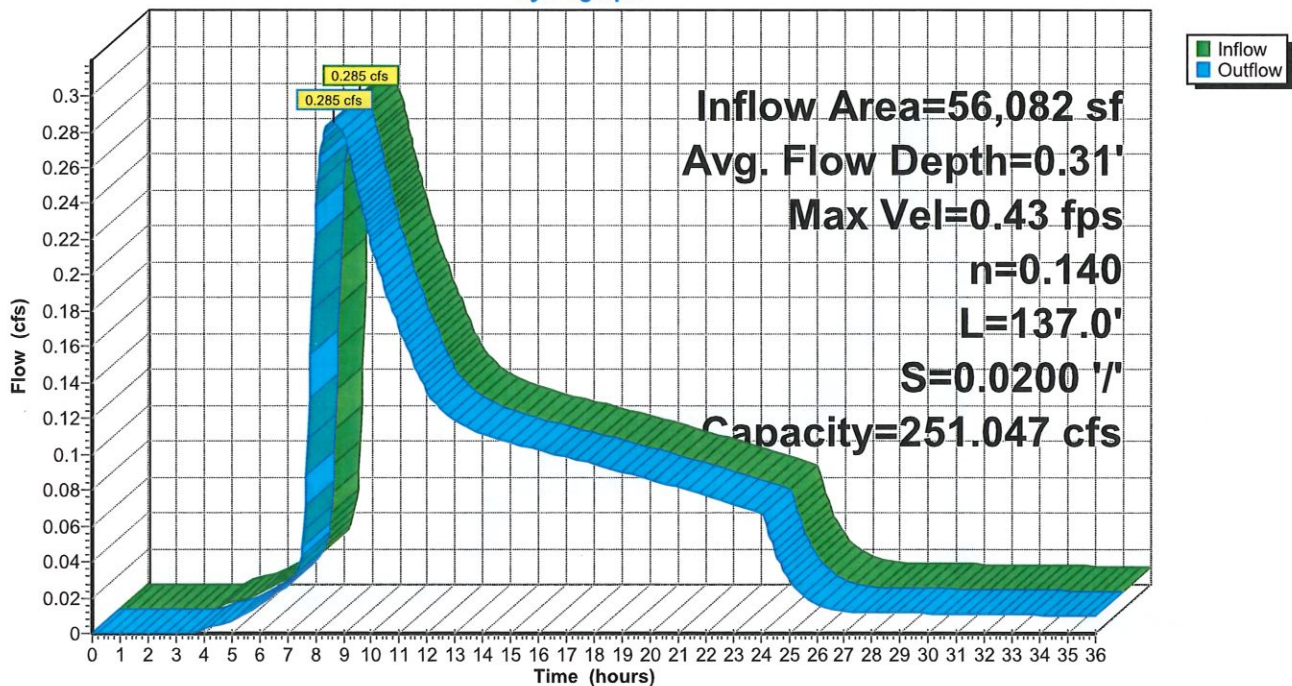
Peak Storage= 90 cf @ 8.68 hrs  
 Average Depth at Peak Storage= 0.31'  
 Bank-Full Depth= 4.00' Flow Area= 106.4 sf, Capacity= 251.047 cfs

0.00' x 4.00' deep channel, n= 0.140 Earth, dense brush, high stage  
 Side Slope Z-value= 3.3 10.0 '/' Top Width= 53.20'  
 Length= 137.0' Slope= 0.0200 '/'  
 Inlet Invert= 137.00', Outlet Invert= 134.26'



**Reach 6R: Creek Basin**

Hydrograph



**Summary for Pond 4P: Extended Dry Basin**

Inflow Area = 42,062 sf, 60.67% Impervious, Inflow Depth = 2.10" for 5yr event  
 Inflow = 0.362 cfs @ 8.04 hrs, Volume= 7,363 cf  
 Outflow = 0.233 cfs @ 8.80 hrs, Volume= 6,600 cf, Atten= 36%, Lag= 45.1 min  
 Primary = 0.233 cfs @ 8.80 hrs, Volume= 6,600 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Peak Elev= 161.54' @ 8.80 hrs Surf.Area= 1,732 sf Storage= 1,788 cf

Plug-Flow detention time= 250.3 min calculated for 6,591 cf (90% of inflow)  
 Center-of-Mass det. time= 179.3 min ( 906.3 - 727.0 )

Volume #1	Invert 159.83'	Avail.Storage 6,315 cf	Storage Description
<b>Custom Stage Data (Prismatic) Listed below (Recalc)</b>			
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
159.83	391	0	0
160.83	1,142	767	767
161.83	1,972	1,557	2,324
162.83	2,884	2,428	4,752
163.33	3,370	1,564	6,315

Device	Routing	Invert	Outlet Devices
#1	Primary	160.23'	<b>0.7" Vert. WQ Orifice</b> C= 0.600
#2	Primary	161.10'	<b>3.0" Vert. 1/2 of 2 Year Orifice</b> C= 0.600
#3	Primary	161.18'	<b>2.3" Vert. 2-Yr Orifice</b> C= 0.600
#4	Primary	161.42'	<b>1.5" Vert. 5-YR Orifice</b> C= 0.600
#5	Primary	161.83'	<b>24.0" x 24.0" Horiz. 50-Yr Overflow</b> C= 0.600 Limited to weir flow at low heads
#6	Primary	162.83'	<b>3.0' long Sharp-Crested Rectangular Weir</b> 2 End Contraction(s) 0.5' Crest Height

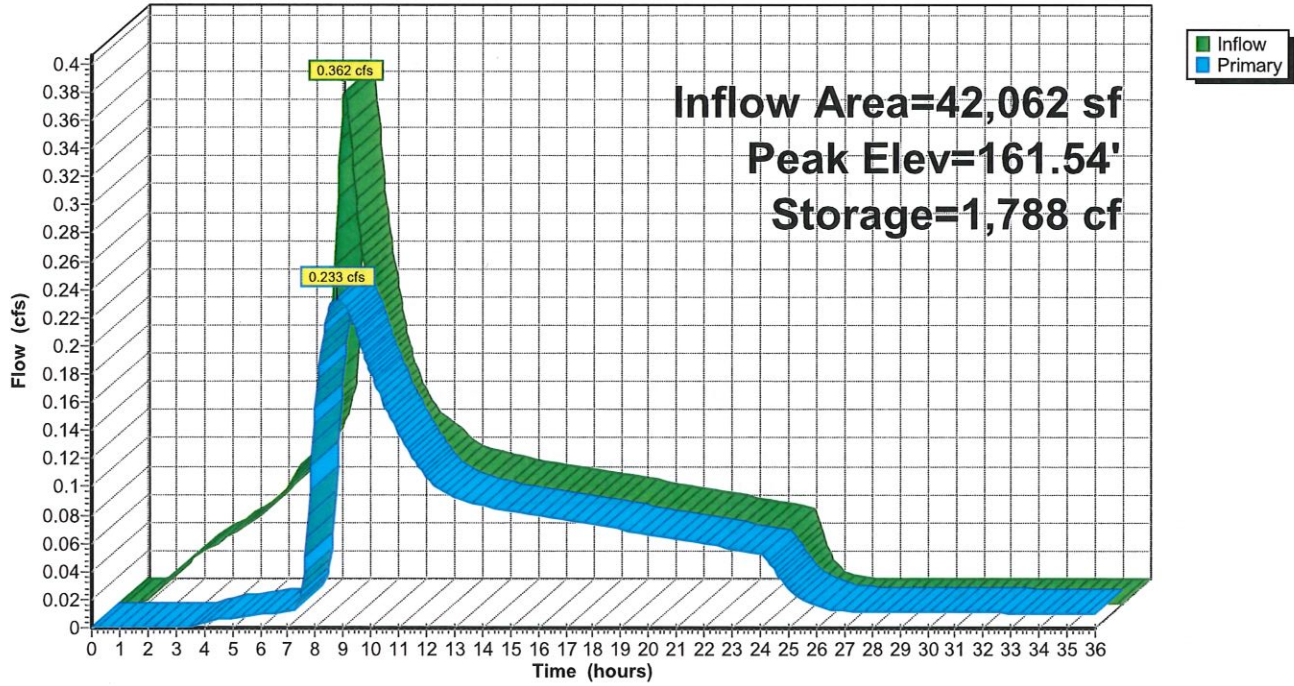
**Primary OutFlow** Max=0.233 cfs @ 8.80 hrs HW=161.54' TW=159.31' (Dynamic Tailwater)

- 1=WQ Orifice (Orifice Controls 0.015 cfs @ 5.45 fps)
- 2=1/2 of 2 Year Orifice (Orifice Controls 0.133 cfs @ 2.71 fps)
- 3=2-Yr Orifice (Orifice Controls 0.072 cfs @ 2.48 fps)
- 4=5-YR Orifice (Orifice Controls 0.014 cfs @ 1.18 fps)
- 5=50-Yr Overflow ( Controls 0.000 cfs)
- 6=Sharp-Crested Rectangular Weir ( Controls 0.000 cfs)



### Pond 4P: Extended Dry Basin

Hydrograph



**Blaine Street Post-developed 2020-018**

Type IA 24-hr 10yr Rainfall=3.50"

Prepared by HBH Consulting Engineers

Printed 10/14/2020

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Page 23

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points

Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 2S: Forest Pre & Post** Runoff Area=14,020 sf 0.00% Impervious Runoff Depth=1.86"  
Flow Length=237' Tc=14.1 min CN=83/0 Runoff=0.125 cfs 2,171 cf

**Subcatchment 3S: Post-Development** Runoff Area=42,062 sf 60.67% Impervious Runoff Depth=2.54"  
Flow Length=540' Tc=27.1 min CN=77/98 Runoff=0.442 cfs 8,918 cf

**Reach 5R: 12" Outfall** Avg. Flow Depth=0.08' Max Vel=9.15 fps Inflow=0.282 cfs 8,151 cf  
12.0" Round Pipe n=0.012 L=86.6' S=0.2740 '/' Capacity=20.204 cfs Outflow=0.282 cfs 8,151 cf

**Reach 6R: Creek Basin** Avg. Flow Depth=0.34' Max Vel=0.46 fps Inflow=0.356 cfs 10,322 cf  
n=0.140 L=137.0' S=0.0200 '/' Capacity=251.047 cfs Outflow=0.355 cfs 10,315 cf

**Pond 4P: Extended Dry Basin** Peak Elev=161.66' Storage=1,998 cf Inflow=0.442 cfs 8,918 cf  
Outflow=0.282 cfs 8,151 cf

**Summary for Subcatchment 2S: Forest Pre & Post**

Runoff = 0.125 cfs @ 8.01 hrs, Volume= 2,171 cf, Depth= 1.86"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 10yr Rainfall=3.50"

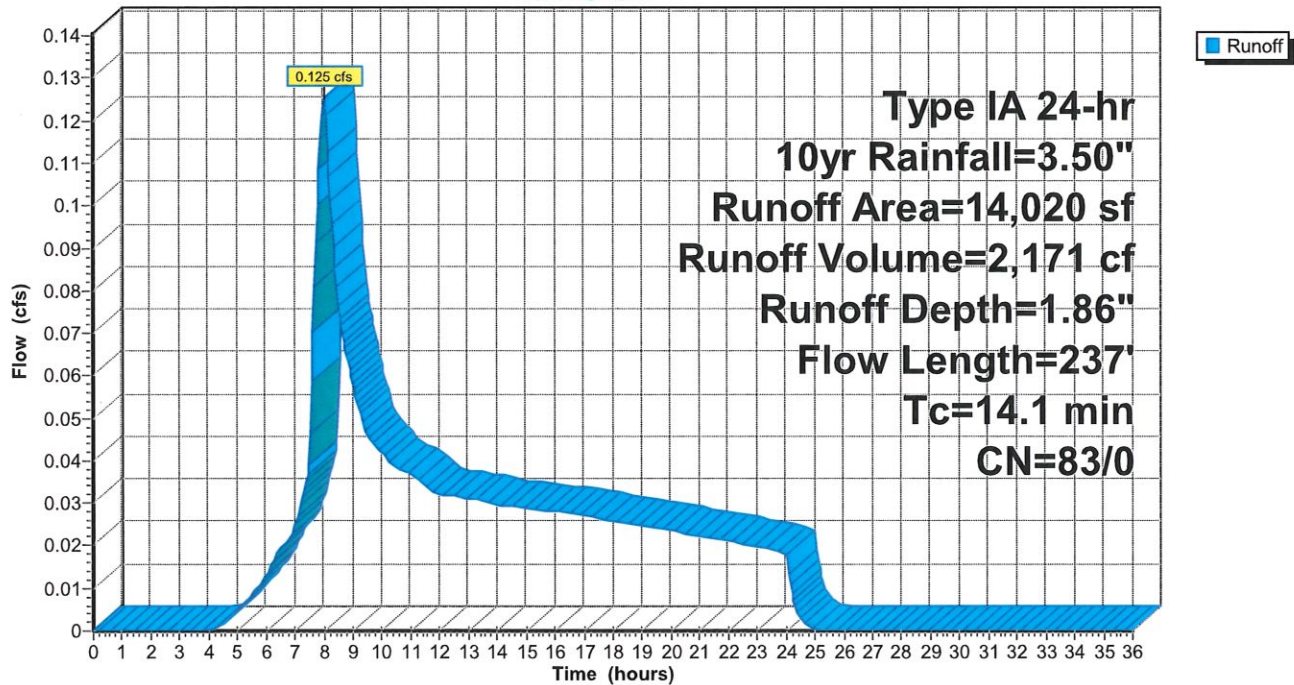
Area (sf)	CN	Description
14,020	83	Woods, Poor, HSG D
14,020	83	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	60	0.0200	0.14		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
6.5	137	0.0200	0.35		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
14.1	237	Total			

**Subcatchment 2S: Forest Pre & Post**

Hydrograph





**Summary for Subcatchment 3S: Post-Development**

Runoff = 0.442 cfs @ 8.04 hrs, Volume= 8,918 cf, Depth= 2.54"

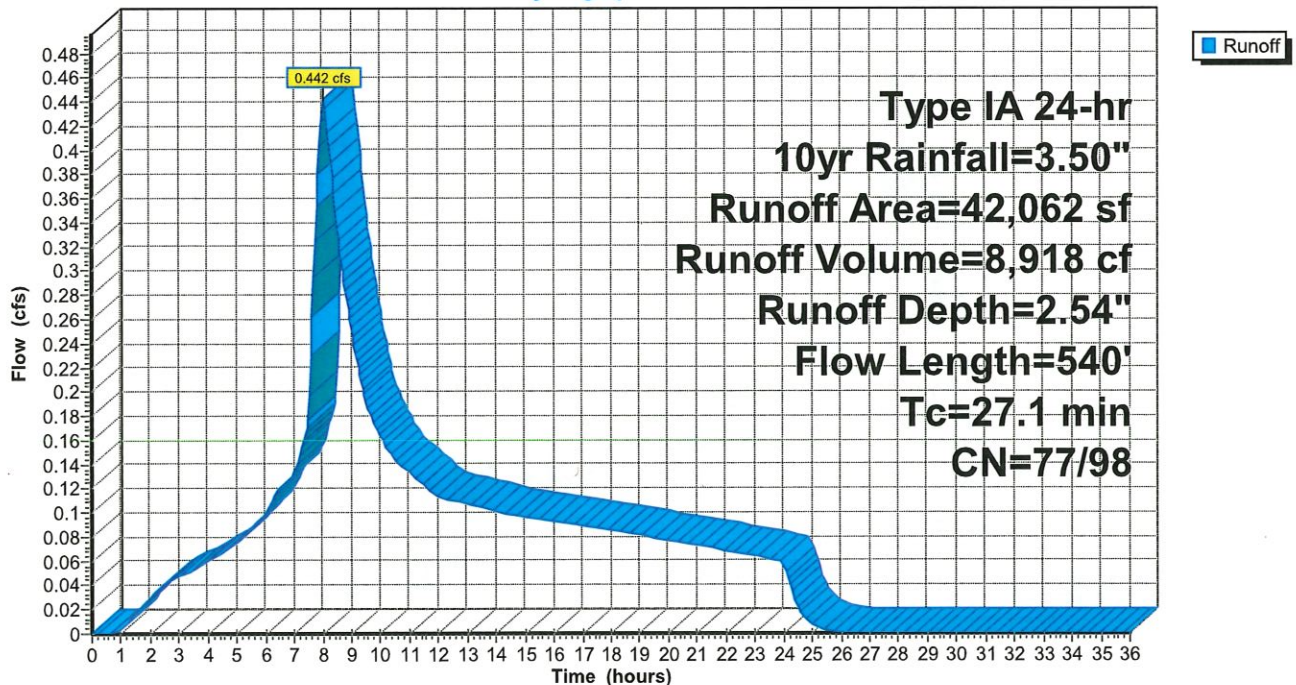
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 10yr Rainfall=3.50"

Area (sf)	CN	Description
* 16,543	77	>75% Grass cover, Good, HSG C/D
* 25,519	98	Asphalt/Concrete/Roofs, HSG C/D
42,062	90	Weighted Average
16,543	77	39.33% Pervious Area
25,519	98	60.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.8	150	0.0100	0.13		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
2.2	150	0.0266	1.14		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
4.7	200	0.0800	0.71		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
27.1	540	Total			

**Subcatchment 3S: Post-Development**

Hydrograph



**Blaine Street Post-developed 2020-018**

Prepared by HBH Consulting Engineers

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Type IA 24-hr 10yr Rainfall=3.50"

Printed 10/14/2020

Page 26

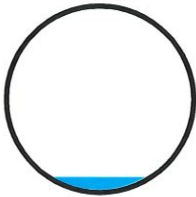
**Summary for Reach 5R: 12" Outfall**

Inflow Area = 42,062 sf, 60.67% Impervious, Inflow Depth > 2.33" for 10yr event  
 Inflow = 0.282 cfs @ 8.81 hrs, Volume= 8,151 cf  
 Outflow = 0.282 cfs @ 8.81 hrs, Volume= 8,151 cf, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 9.15 fps, Min. Travel Time= 0.2 min  
 Avg. Velocity = 5.31 fps, Avg. Travel Time= 0.3 min

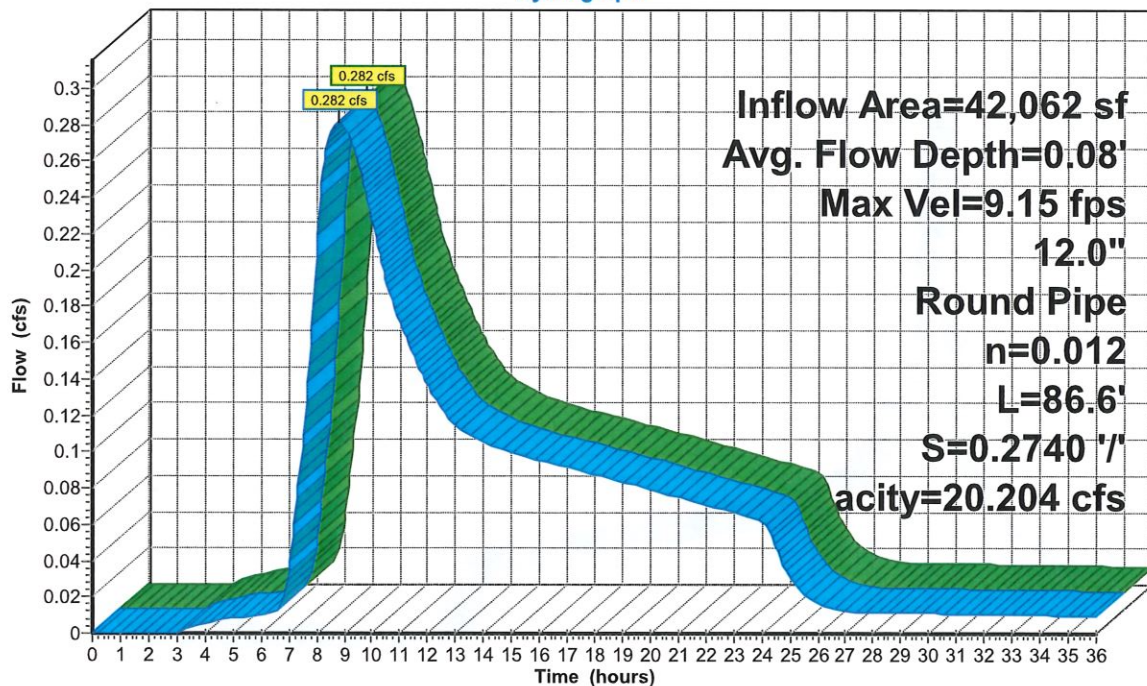
Peak Storage= 3 cf @ 8.81 hrs  
 Average Depth at Peak Storage= 0.08'  
 Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 20.204 cfs

12.0" Round Pipe  
 n= 0.012  
 Length= 86.6' Slope= 0.2740 '/'  
 Inlet Invert= 159.23', Outlet Invert= 135.50'



**Reach 5R: 12" Outfall**

Hydrograph





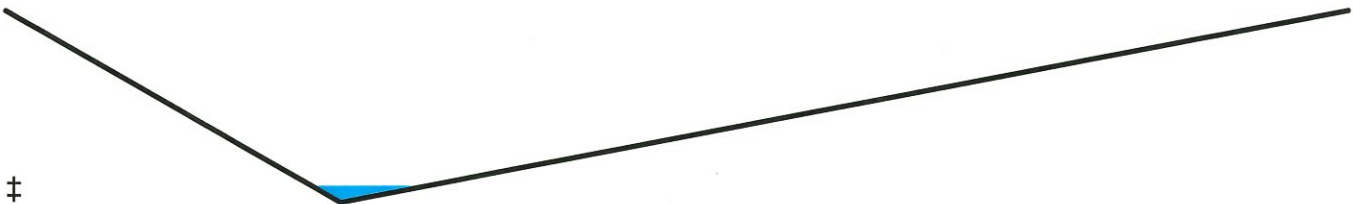
**Summary for Reach 6R: Creek Basin**

Inflow Area = 56,082 sf, 45.50% Impervious, Inflow Depth > 2.21" for 10yr event  
 Inflow = 0.356 cfs @ 8.29 hrs, Volume= 10,322 cf  
 Outflow = 0.355 cfs @ 8.37 hrs, Volume= 10,315 cf, Atten= 0%, Lag= 4.5 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.46 fps, Min. Travel Time= 5.0 min  
 Avg. Velocity = 0.29 fps, Avg. Travel Time= 7.9 min

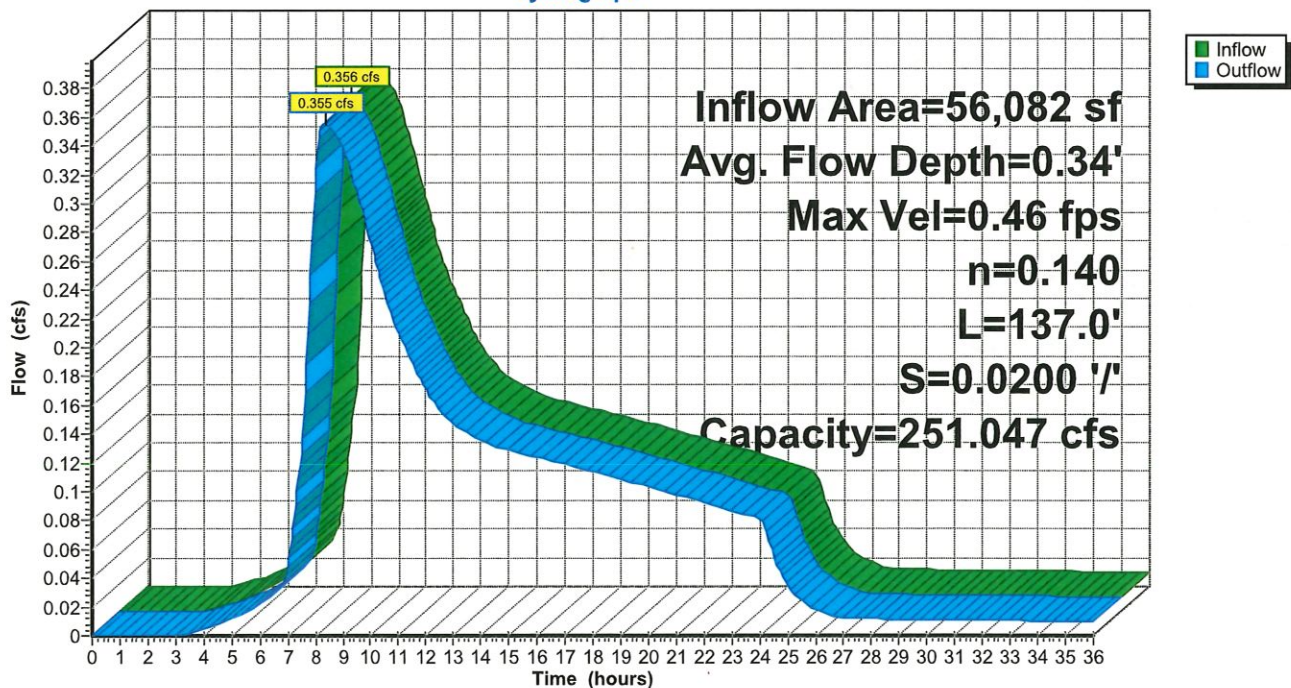
Peak Storage= 106 cf @ 8.37 hrs  
 Average Depth at Peak Storage= 0.34'  
 Bank-Full Depth= 4.00' Flow Area= 106.4 sf, Capacity= 251.047 cfs

0.00' x 4.00' deep channel, n= 0.140 Earth, dense brush, high stage  
 Side Slope Z-value= 3.3 10.0 '/' Top Width= 53.20'  
 Length= 137.0' Slope= 0.0200 '/'  
 Inlet Invert= 137.00', Outlet Invert= 134.26'



**Reach 6R: Creek Basin**

Hydrograph





**Summary for Pond 4P: Extended Dry Basin**

Inflow Area = 42,062 sf, 60.67% Impervious, Inflow Depth = 2.54" for 10yr event  
 Inflow = 0.442 cfs @ 8.04 hrs, Volume= 8,918 cf  
 Outflow = 0.282 cfs @ 8.81 hrs, Volume= 8,151 cf, Atten= 36%, Lag= 45.9 min  
 Primary = 0.282 cfs @ 8.81 hrs, Volume= 8,151 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Peak Elev= 161.66' @ 8.81 hrs Surf.Area= 1,830 sf Storage= 1,998 cf

Plug-Flow detention time= 217.7 min calculated for 8,151 cf (91% of inflow)  
 Center-of-Mass det. time= 157.1 min ( 880.4 - 723.3 )

Volume	Invert	Avail.Storage	Storage Description
#1	159.83'	6,315 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
159.83	391	0	0
160.83	1,142	767	767
161.83	1,972	1,557	2,324
162.83	2,884	2,428	4,752
163.33	3,370	1,564	6,315

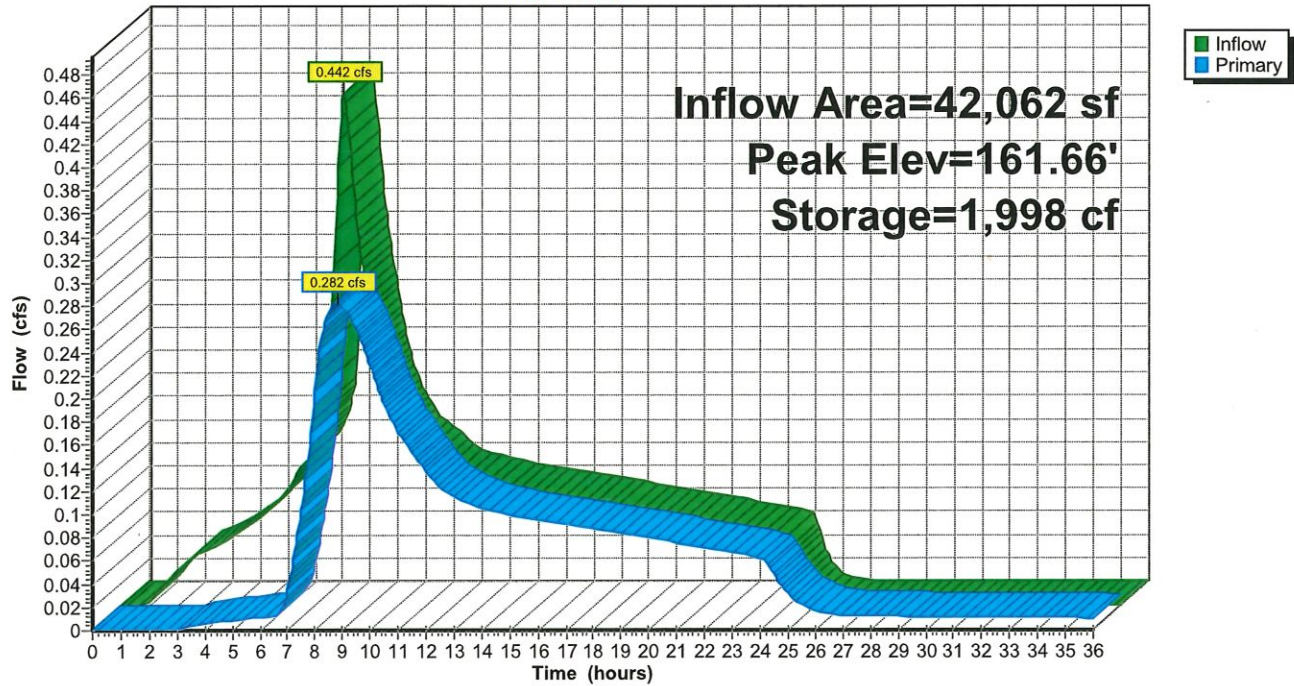
Device	Routing	Invert	Outlet Devices
#1	Primary	160.23'	<b>0.7" Vert. WQ Orifice</b> C= 0.600
#2	Primary	161.10'	<b>3.0" Vert. 1/2 of 2 Year Orifice</b> C= 0.600
#3	Primary	161.18'	<b>2.3" Vert. 2-Yr Orifice</b> C= 0.600
#4	Primary	161.42'	<b>1.5" Vert. 5-YR Orifice</b> C= 0.600
#5	Primary	161.83'	<b>24.0" x 24.0" Horiz. 50-Yr Overflow</b> C= 0.600 Limited to weir flow at low heads
#6	Primary	162.83'	<b>3.0' long Sharp-Crested Rectangular Weir</b> 2 End Contraction(s) 0.5' Crest Height

**Primary OutFlow** Max=0.282 cfs @ 8.81 hrs HW=161.66' TW=159.31' (Dynamic Tailwater)

- 1=WQ Orifice (Orifice Controls 0.015 cfs @ 5.70 fps)
- 2=1/2 of 2 Year Orifice (Orifice Controls 0.156 cfs @ 3.17 fps)
- 3=2-Yr Orifice (Orifice Controls 0.086 cfs @ 2.98 fps)
- 4=5-YR Orifice (Orifice Controls 0.025 cfs @ 2.02 fps)
- 5=50-Yr Overflow ( Controls 0.000 cfs)
- 6=Sharp-Crested Rectangular Weir ( Controls 0.000 cfs)

### Pond 4P: Extended Dry Basin

Hydrograph



**Blaine Street Post-developed 2020-018**

Type IA 24-hr 25yr Rainfall=4.00"

Prepared by HBH Consulting Engineers

Printed 10/14/2020

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Page 30

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points  
Runoff by SBUH method, Split Pervious/Imperv.  
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 2S: Forest Pre & Post**      Runoff Area=14,020 sf   0.00% Impervious   Runoff Depth=2.29"  
Flow Length=237'   Tc=14.1 min   CN=83/0   Runoff=0.159 cfs   2,671 cf

**Subcatchment 3S: Post-Development**      Runoff Area=42,062 sf   60.67% Impervious   Runoff Depth=3.00"  
Flow Length=540'   Tc=27.1 min   CN=77/98   Runoff=0.524 cfs   10,505 cf

**Reach 5R: 12" Outfall**      Avg. Flow Depth=0.09'   Max Vel=9.52 fps   Inflow=0.322 cfs   9,733 cf  
12.0" Round Pipe   n=0.012   L=86.6'   S=0.2740 ' /'   Capacity=20.204 cfs   Outflow=0.322 cfs   9,733 cf

**Reach 6R: Creek Basin**      Avg. Flow Depth=0.36'   Max Vel=0.48 fps   Inflow=0.419 cfs   12,404 cf  
n=0.140   L=137.0'   S=0.0200 ' /'   Capacity=251.047 cfs   Outflow=0.418 cfs   12,397 cf

**Pond 4P: Extended Dry Basin**      Peak Elev=161.78'   Storage=2,221 cf   Inflow=0.524 cfs   10,505 cf  
Outflow=0.322 cfs   9,733 cf



**Summary for Subcatchment 2S: Forest Pre & Post**

Runoff = 0.159 cfs @ 8.01 hrs, Volume= 2,671 cf, Depth= 2.29"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 25yr Rainfall=4.00"

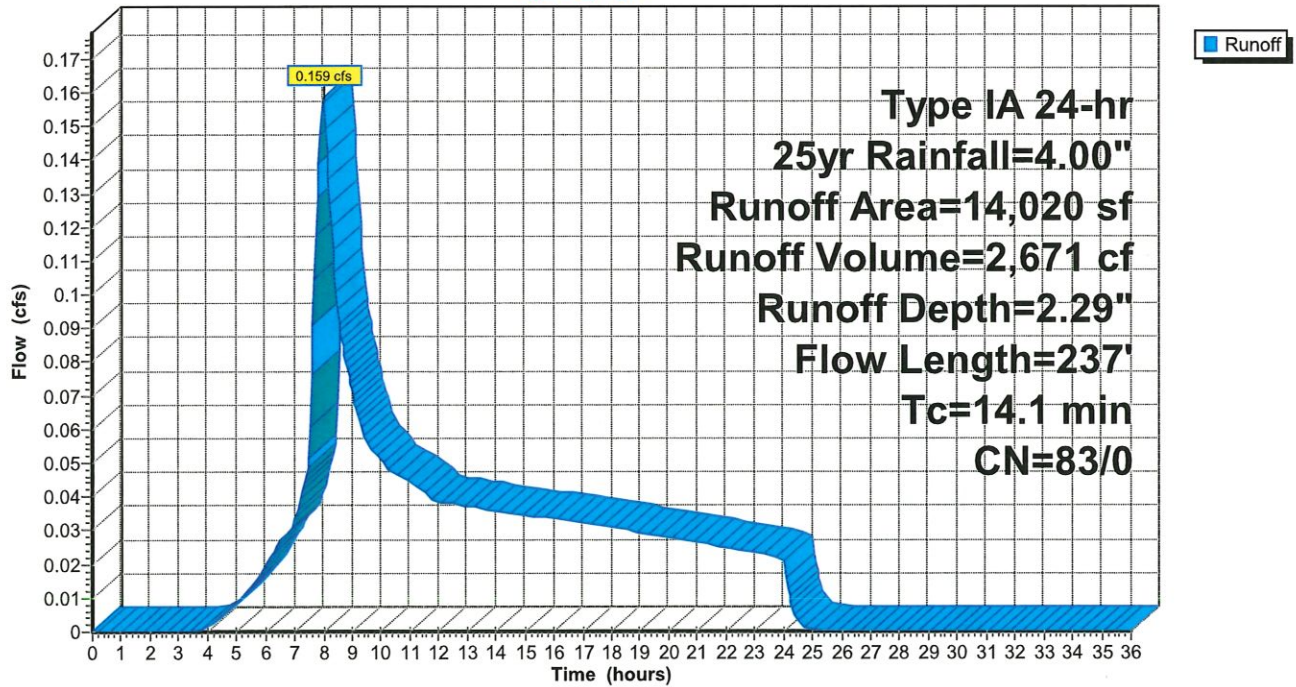
Area (sf)	CN	Description
14,020	83	Woods, Poor, HSG D
14,020	83	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	60	0.0200	0.14		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
6.5	137	0.0200	0.35		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
14.1	237	Total			

**Subcatchment 2S: Forest Pre & Post**

Hydrograph



**Summary for Subcatchment 3S: Post-Development**

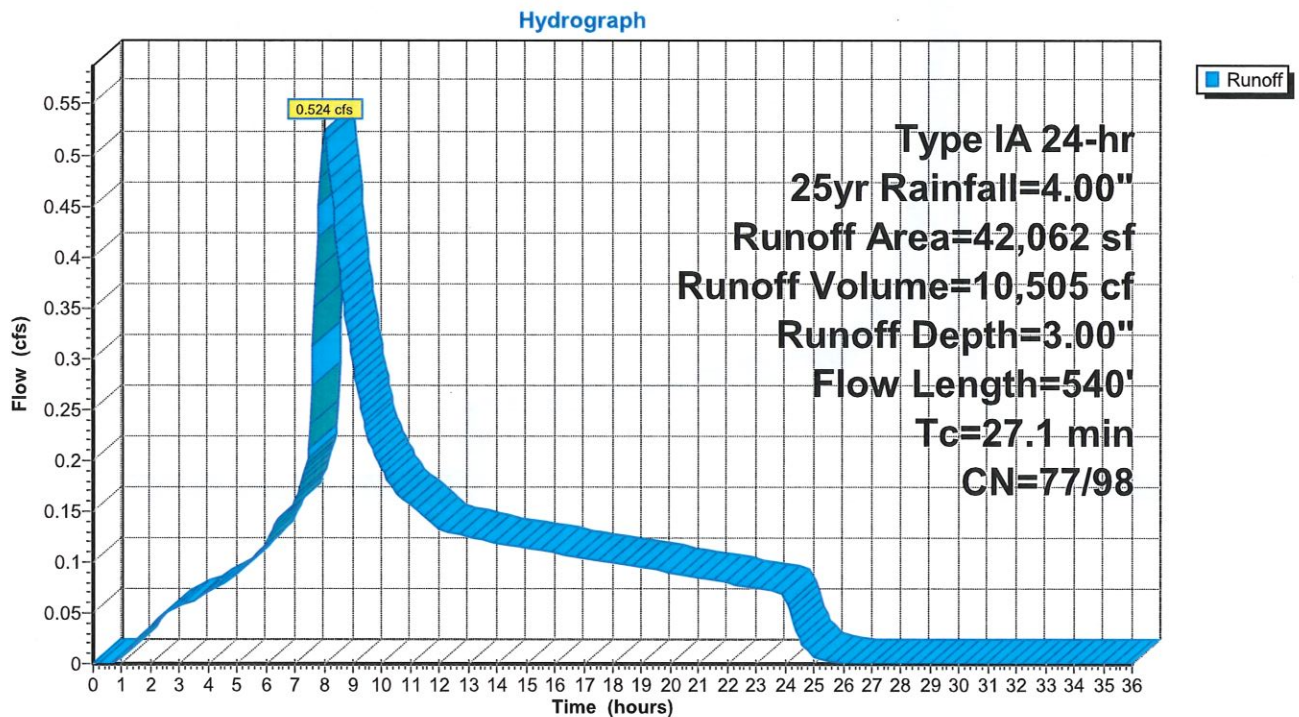
Runoff = 0.524 cfs @ 8.04 hrs, Volume= 10,505 cf, Depth= 3.00"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 25yr Rainfall=4.00"

	Area (sf)	CN	Description
*	16,543	77	>75% Grass cover, Good, HSG C/D
*	25,519	98	Asphalt/Concrete/Roofs, HSG C/D
	42,062	90	Weighted Average
	16,543	77	39.33% Pervious Area
	25,519	98	60.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.8	150	0.0100	0.13		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
2.2	150	0.0266	1.14		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
4.7	200	0.0800	0.71		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
27.1	540	Total			

**Subcatchment 3S: Post-Development**





# Blaine Street Post-developed 2020-018

Prepared by HBH Consulting Engineers

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Type IA 24-hr 25yr Rainfall=4.00"

Printed 10/14/2020

Page 33

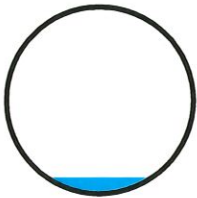
## Summary for Reach 5R: 12" Outfall

Inflow Area = 42,062 sf, 60.67% Impervious, Inflow Depth > 2.78" for 25yr event  
Inflow = 0.322 cfs @ 8.86 hrs, Volume= 9,733 cf  
Outflow = 0.322 cfs @ 8.87 hrs, Volume= 9,733 cf, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Max. Velocity= 9.52 fps, Min. Travel Time= 0.2 min  
Avg. Velocity = 5.55 fps, Avg. Travel Time= 0.3 min

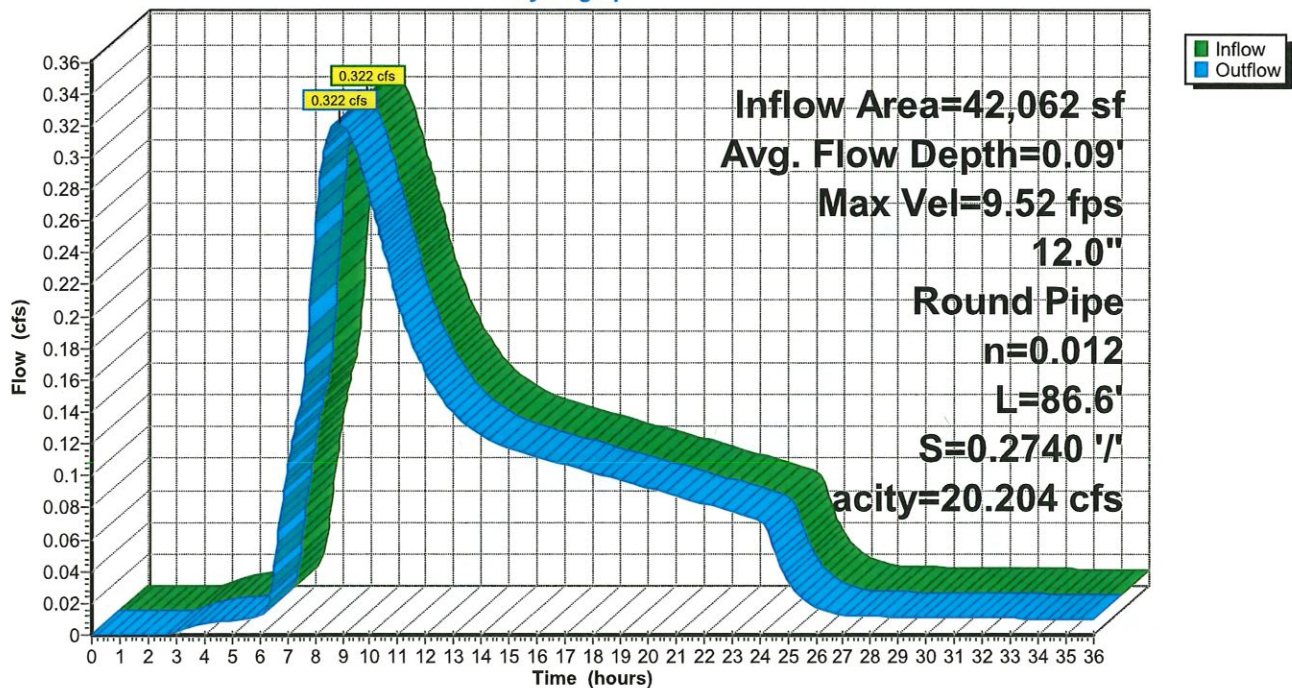
Peak Storage= 3 cf @ 8.87 hrs  
Average Depth at Peak Storage= 0.09'  
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 20.204 cfs

12.0" Round Pipe  
n= 0.012  
Length= 86.6' Slope= 0.2740 '/'  
Inlet Invert= 159.23', Outlet Invert= 135.50'



## Reach 5R: 12" Outfall

Hydrograph





**Summary for Reach 6R: Creek Basin**

Inflow Area = 56,082 sf, 45.50% Impervious, Inflow Depth > 2.65" for 25yr event  
 Inflow = 0.419 cfs @ 8.20 hrs, Volume= 12,404 cf  
 Outflow = 0.418 cfs @ 8.27 hrs, Volume= 12,397 cf, Atten= 0%, Lag= 4.6 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.48 fps, Min. Travel Time= 4.8 min  
 Avg. Velocity = 0.30 fps, Avg. Travel Time= 7.6 min

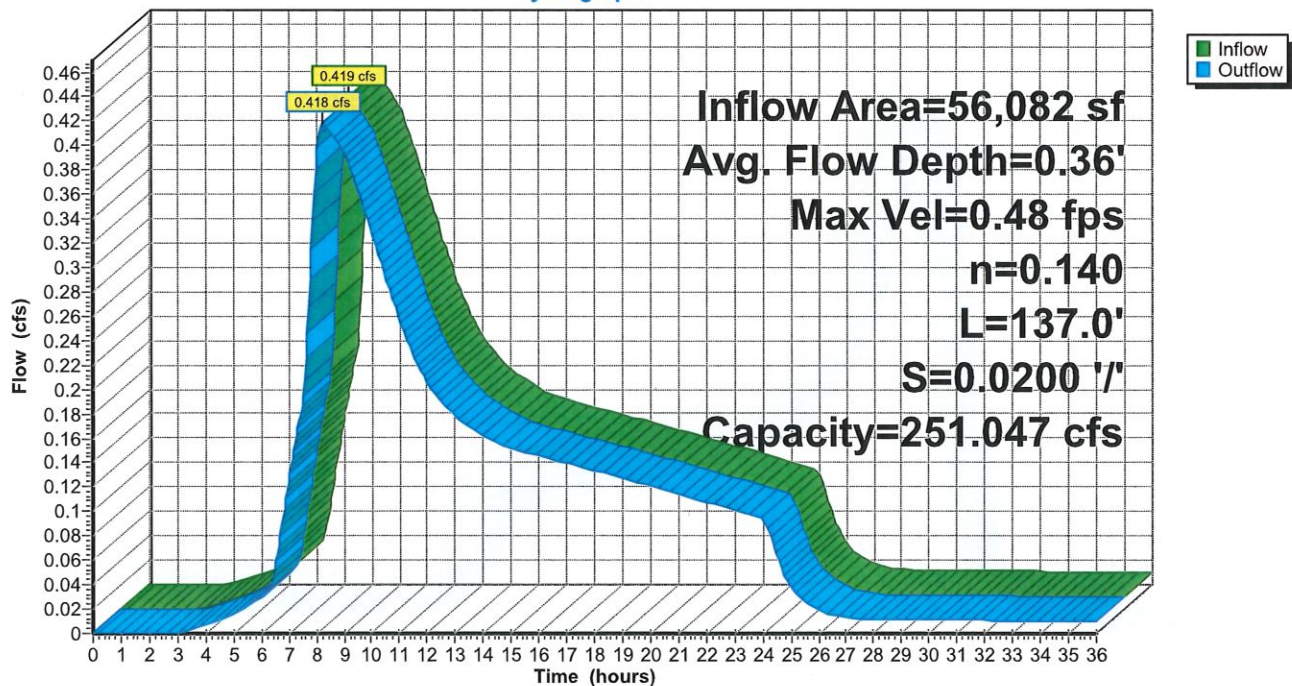
Peak Storage= 120 cf @ 8.27 hrs  
 Average Depth at Peak Storage= 0.36'  
 Bank-Full Depth= 4.00' Flow Area= 106.4 sf, Capacity= 251.047 cfs

0.00' x 4.00' deep channel, n= 0.140 Earth, dense brush, high stage  
 Side Slope Z-value= 3.3 10.0 '/' Top Width= 53.20'  
 Length= 137.0' Slope= 0.0200 '/'  
 Inlet Invert= 137.00', Outlet Invert= 134.26'



**Reach 6R: Creek Basin**

Hydrograph



**Summary for Pond 4P: Extended Dry Basin**

Inflow Area = 42,062 sf, 60.67% Impervious, Inflow Depth = 3.00" for 25yr event  
 Inflow = 0.524 cfs @ 8.04 hrs, Volume= 10,505 cf  
 Outflow = 0.322 cfs @ 8.86 hrs, Volume= 9,733 cf, Atten= 39%, Lag= 49.3 min  
 Primary = 0.322 cfs @ 8.86 hrs, Volume= 9,733 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Peak Elev= 161.78' @ 8.86 hrs Surf.Area= 1,928 sf Storage= 2,221 cf

Plug-Flow detention time= 194.2 min calculated for 9,733 cf (93% of inflow)  
 Center-of-Mass det. time= 141.9 min ( 861.9 - 720.0 )

Volume #1	Invert 159.83'	Avail.Storage 6,315 cf	Storage Description
<b>Custom Stage Data (Prismatic) Listed below (Recalc)</b>			
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
159.83	391	0	0
160.83	1,142	767	767
161.83	1,972	1,557	2,324
162.83	2,884	2,428	4,752
163.33	3,370	1,564	6,315

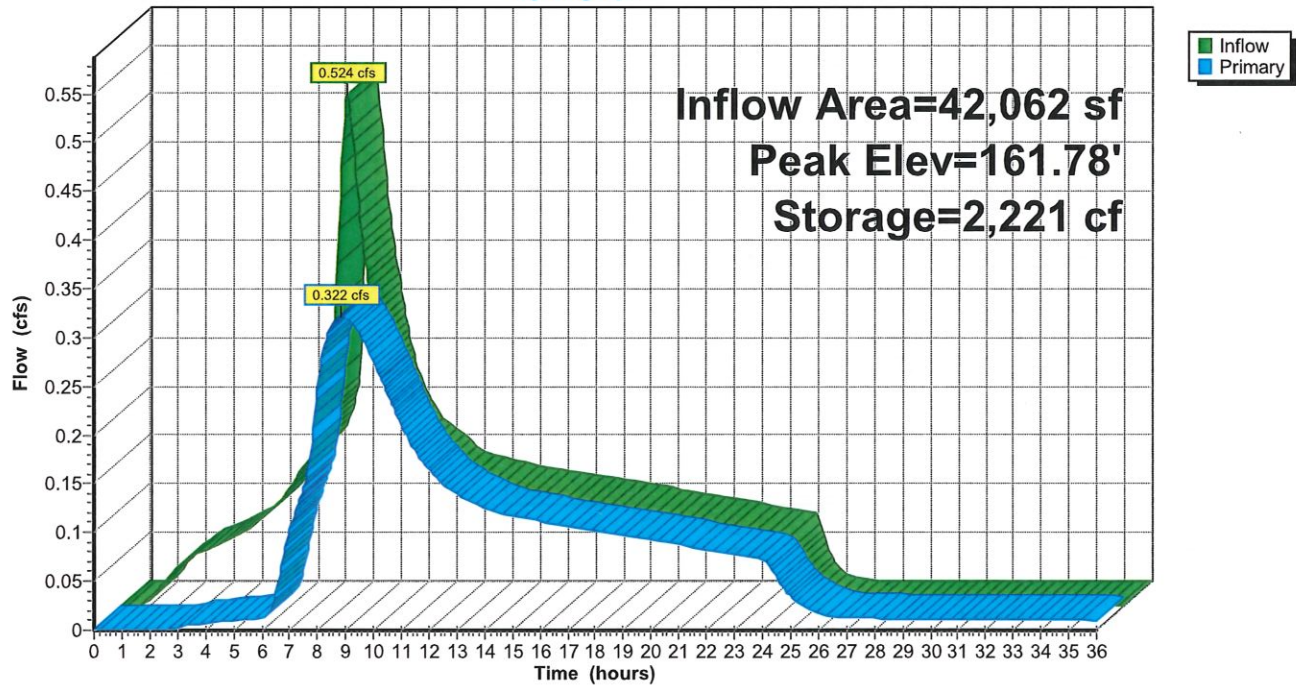
Device	Routing	Invert	Outlet Devices
#1	Primary	160.23'	<b>0.7" Vert. WQ Orifice</b> C= 0.600
#2	Primary	161.10'	<b>3.0" Vert. 1/2 of 2 Year Orifice</b> C= 0.600
#3	Primary	161.18'	<b>2.3" Vert. 2-Yr Orifice</b> C= 0.600
#4	Primary	161.42'	<b>1.5" Vert. 5-YR Orifice</b> C= 0.600
#5	Primary	161.83'	<b>24.0" x 24.0" Horiz. 50-Yr Overflow</b> C= 0.600 Limited to weir flow at low heads
#6	Primary	162.83'	<b>3.0' long Sharp-Crested Rectangular Weir</b> 2 End Contraction(s) 0.5' Crest Height

**Primary OutFlow** Max=0.322 cfs @ 8.86 hrs HW=161.78' TW=159.32' (Dynamic Tailwater)

- 1=WQ Orifice (Orifice Controls 0.016 cfs @ 5.93 fps)
- 2=1/2 of 2 Year Orifice (Orifice Controls 0.176 cfs @ 3.58 fps)
- 3=2-Yr Orifice (Orifice Controls 0.098 cfs @ 3.41 fps)
- 4=5-YR Orifice (Orifice Controls 0.032 cfs @ 2.61 fps)
- 5=50-Yr Overflow ( Controls 0.000 cfs)
- 6=Sharp-Crested Rectangular Weir ( Controls 0.000 cfs)

### Pond 4P: Extended Dry Basin

Hydrograph





**Blaine Street Post-developed 2020-018**

Type IA 24-hr 50yr Rainfall=4.20"

Prepared by HBH Consulting Engineers

Printed 10/14/2020

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Page 37

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points

Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 2S: Forest Pre & Post** Runoff Area=14,020 sf 0.00% Impervious Runoff Depth=2.46"  
Flow Length=237' Tc=14.1 min CN=83/0 Runoff=0.172 cfs 2,875 cf

**Subcatchment 3S: Post-Development** Runoff Area=42,062 sf 60.67% Impervious Runoff Depth=3.18"  
Flow Length=540' Tc=27.1 min CN=77/98 Runoff=0.557 cfs 11,146 cf

**Reach 5R: 12" Outfall** Avg. Flow Depth=0.09' Max Vel=9.64 fps Inflow=0.337 cfs 10,374 cf  
12.0" Round Pipe n=0.012 L=86.6' S=0.2740 '/' Capacity=20.204 cfs Outflow=0.337 cfs 10,374 cf

**Reach 6R: Creek Basin** Avg. Flow Depth=0.37' Max Vel=0.48 fps Inflow=0.444 cfs 13,248 cf  
n=0.140 L=137.0' S=0.0200 '/' Capacity=251.047 cfs Outflow=0.443 cfs 13,241 cf

**Pond 4P: Extended Dry Basin** Peak Elev=161.83' Storage=2,316 cf Inflow=0.557 cfs 11,146 cf  
Outflow=0.337 cfs 10,374 cf

**Summary for Subcatchment 2S: Forest Pre & Post**

Runoff = 0.172 cfs @ 8.01 hrs, Volume= 2,875 cf, Depth= 2.46"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 50yr Rainfall=4.20"

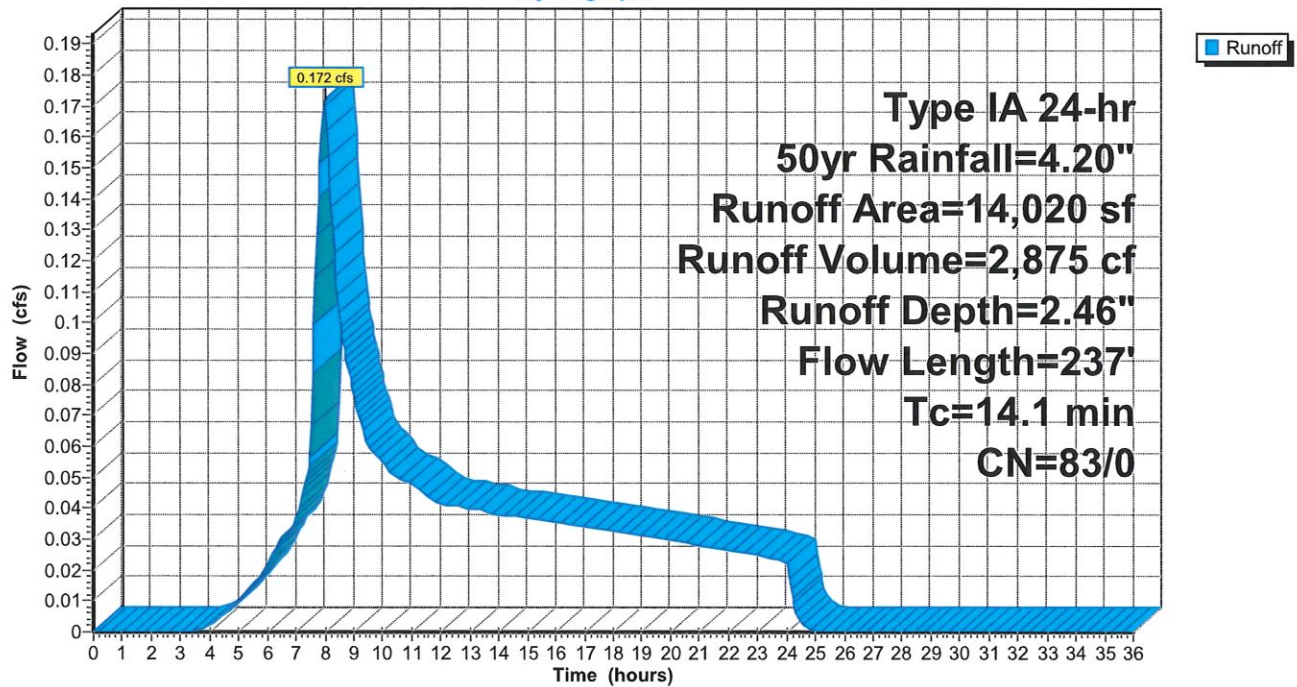
Area (sf)	CN	Description
14,020	83	Woods, Poor, HSG D
14,020	83	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	60	0.0200	0.14		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
6.5	137	0.0200	0.35		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
14.1	237	Total			

**Subcatchment 2S: Forest Pre & Post**

Hydrograph



**Blaine Street Post-developed 2020-018**

Prepared by HBH Consulting Engineers

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Type IA 24-hr 50yr Rainfall=4.20"

Printed 10/14/2020

Page 39

**Summary for Subcatchment 3S: Post-Development**

Runoff = 0.557 cfs @ 8.04 hrs, Volume= 11,146 cf, Depth= 3.18"

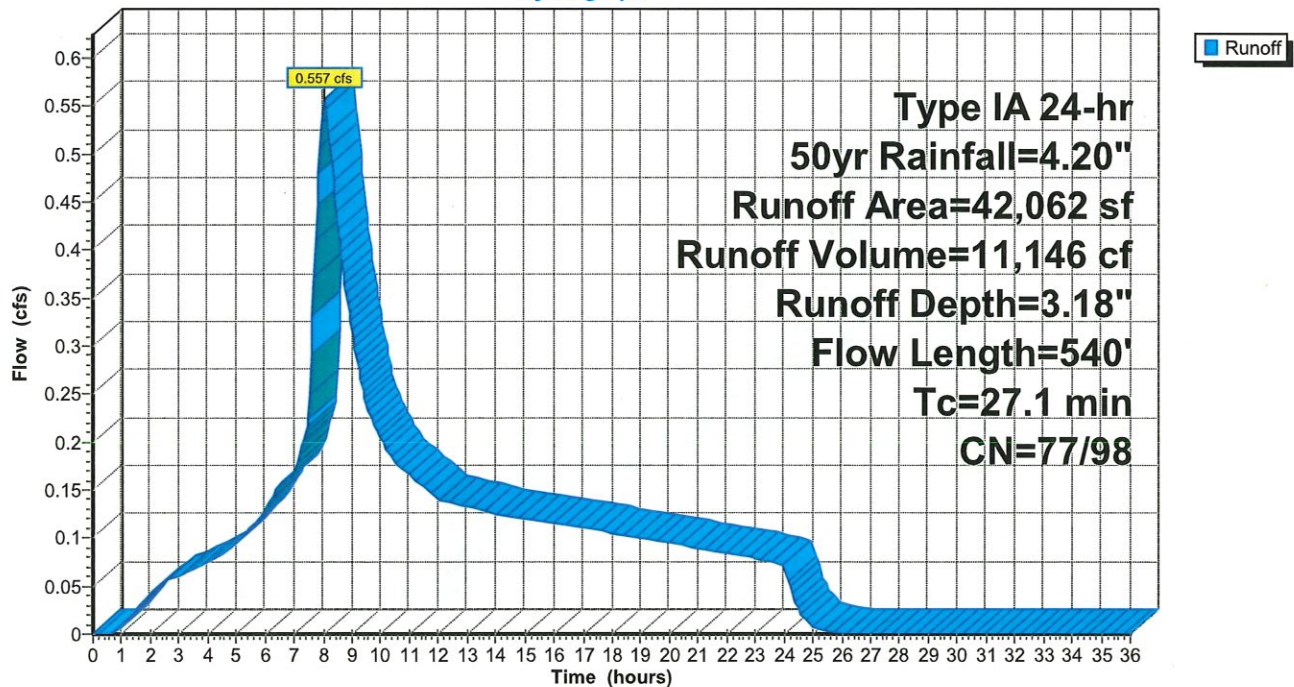
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 50yr Rainfall=4.20"

Area (sf)	CN	Description
* 16,543	77	>75% Grass cover, Good, HSG C/D
* 25,519	98	Asphalt/Concrete/Roofs, HSG C/D
42,062	90	Weighted Average
16,543	77	39.33% Pervious Area
25,519	98	60.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.8	150	0.0100	0.13		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
2.2	150	0.0266	1.14		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
4.7	200	0.0800	0.71		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
27.1	540	Total			

**Subcatchment 3S: Post-Development**

Hydrograph





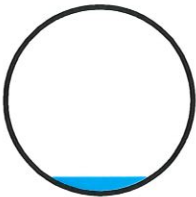
**Summary for Reach 5R: 12" Outfall**

Inflow Area = 42,062 sf, 60.67% Impervious, Inflow Depth > 2.96" for 50yr event  
 Inflow = 0.337 cfs @ 8.89 hrs, Volume= 10,374 cf  
 Outflow = 0.337 cfs @ 8.89 hrs, Volume= 10,374 cf, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 9.64 fps, Min. Travel Time= 0.1 min  
 Avg. Velocity = 5.63 fps, Avg. Travel Time= 0.3 min

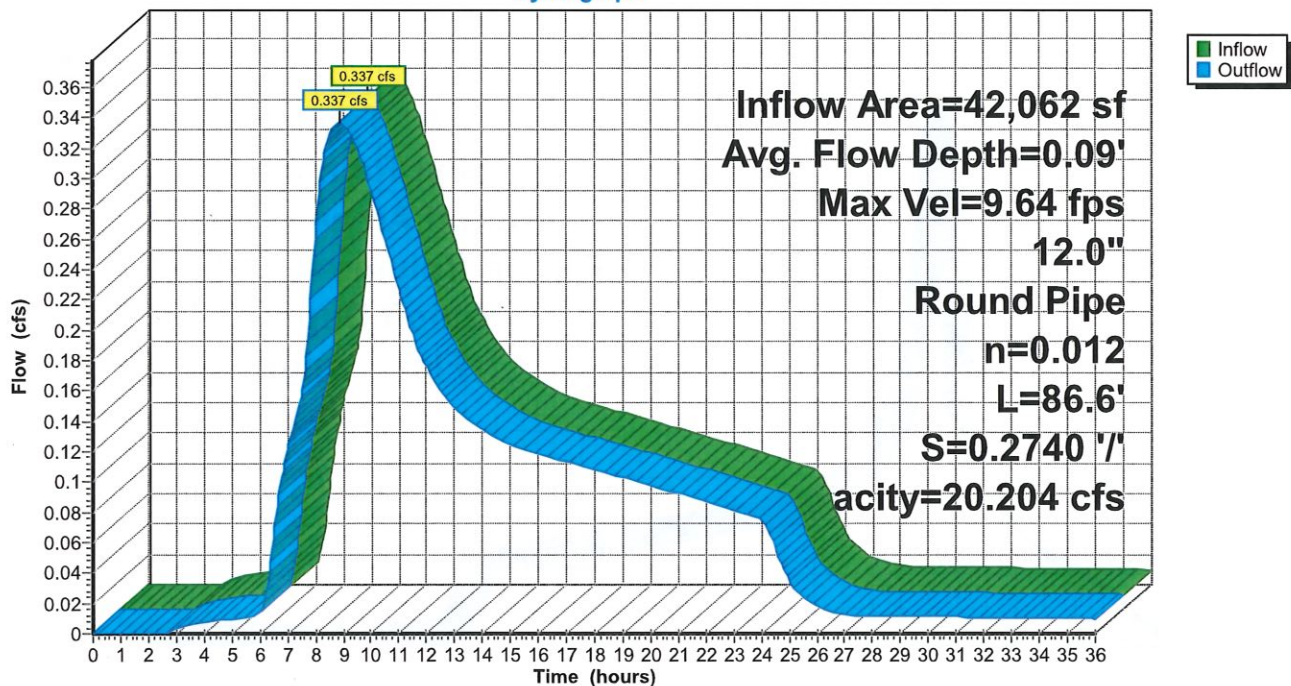
Peak Storage= 3 cf @ 8.89 hrs  
 Average Depth at Peak Storage= 0.09'  
 Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 20.204 cfs

12.0" Round Pipe  
 n= 0.012  
 Length= 86.6' Slope= 0.2740 '/'  
 Inlet Invert= 159.23', Outlet Invert= 135.50'



**Reach 5R: 12" Outfall**

Hydrograph



**Summary for Reach 6R: Creek Basin**

Inflow Area = 56,082 sf, 45.50% Impervious, Inflow Depth > 2.83" for 50yr event  
 Inflow = 0.444 cfs @ 8.16 hrs, Volume= 13,248 cf  
 Outflow = 0.443 cfs @ 8.25 hrs, Volume= 13,241 cf, Atten= 0%, Lag= 5.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.48 fps, Min. Travel Time= 4.7 min  
 Avg. Velocity = 0.30 fps, Avg. Travel Time= 7.5 min

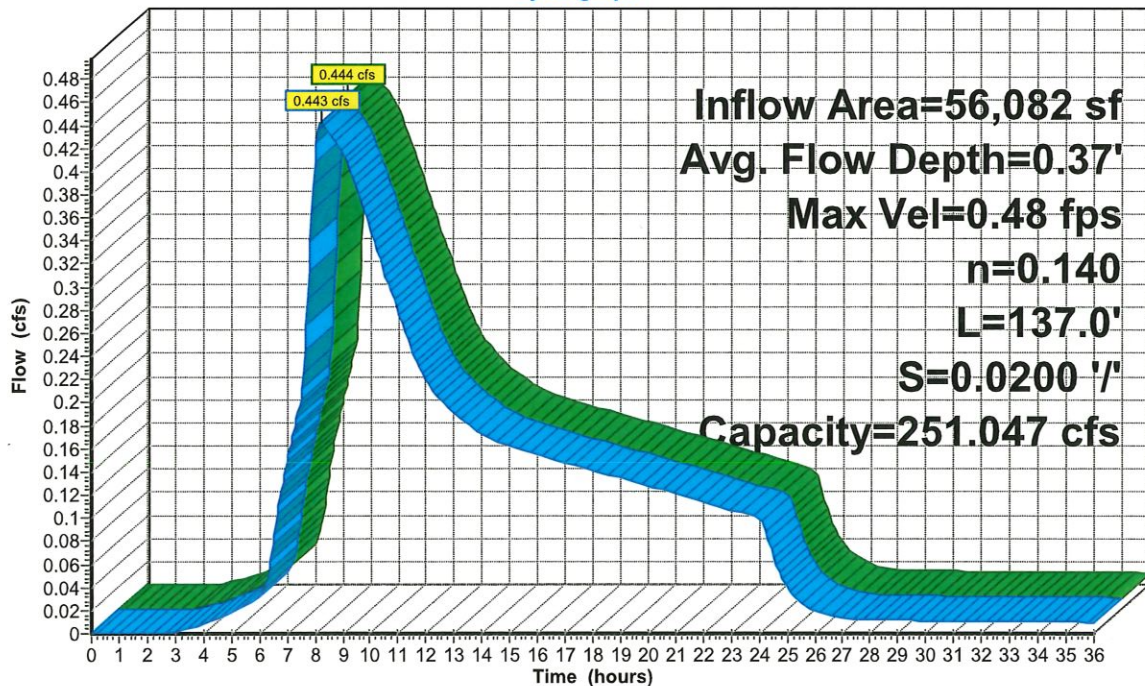
Peak Storage= 125 cf @ 8.25 hrs  
 Average Depth at Peak Storage= 0.37'  
 Bank-Full Depth= 4.00' Flow Area= 106.4 sf, Capacity= 251.047 cfs

0.00' x 4.00' deep channel, n= 0.140 Earth, dense brush, high stage  
 Side Slope Z-value= 3.3 10.0 '/' Top Width= 53.20'  
 Length= 137.0' Slope= 0.0200 '/'  
 Inlet Invert= 137.00', Outlet Invert= 134.26'



**Reach 6R: Creek Basin**

Hydrograph



Legend:  
 ■ Inflow  
 ■ Outflow

**Summary for Pond 4P: Extended Dry Basin**

Inflow Area = 42,062 sf, 60.67% Impervious, Inflow Depth = 3.18" for 50yr event  
 Inflow = 0.557 cfs @ 8.04 hrs, Volume= 11,146 cf  
 Outflow = 0.337 cfs @ 8.89 hrs, Volume= 10,374 cf, Atten= 40%, Lag= 50.8 min  
 Primary = 0.337 cfs @ 8.89 hrs, Volume= 10,374 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Peak Elev= 161.83' @ 8.89 hrs Surf.Area= 1,969 sf Storage= 2,316 cf

Plug-Flow detention time= 186.8 min calculated for 10,374 cf (93% of inflow)  
 Center-of-Mass det. time= 137.2 min ( 856.0 - 718.8 )

Volume	Invert	Avail.Storage	Storage Description
#1	159.83'	6,315 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
159.83	391	0	0
160.83	1,142	767	767
161.83	1,972	1,557	2,324
162.83	2,884	2,428	4,752
163.33	3,370	1,564	6,315

Device	Routing	Invert	Outlet Devices
#1	Primary	160.23'	<b>0.7" Vert. WQ Orifice</b> C= 0.600
#2	Primary	161.10'	<b>3.0" Vert. 1/2 of 2 Year Orifice</b> C= 0.600
#3	Primary	161.18'	<b>2.3" Vert. 2-Yr Orifice</b> C= 0.600
#4	Primary	161.42'	<b>1.5" Vert. 5-YR Orifice</b> C= 0.600
#5	Primary	161.83'	<b>24.0" x 24.0" Horiz. 50-Yr Overflow</b> C= 0.600 Limited to weir flow at low heads
#6	Primary	162.83'	<b>3.0' long Sharp-Crested Rectangular Weir</b> 2 End Contraction(s) 0.5' Crest Height

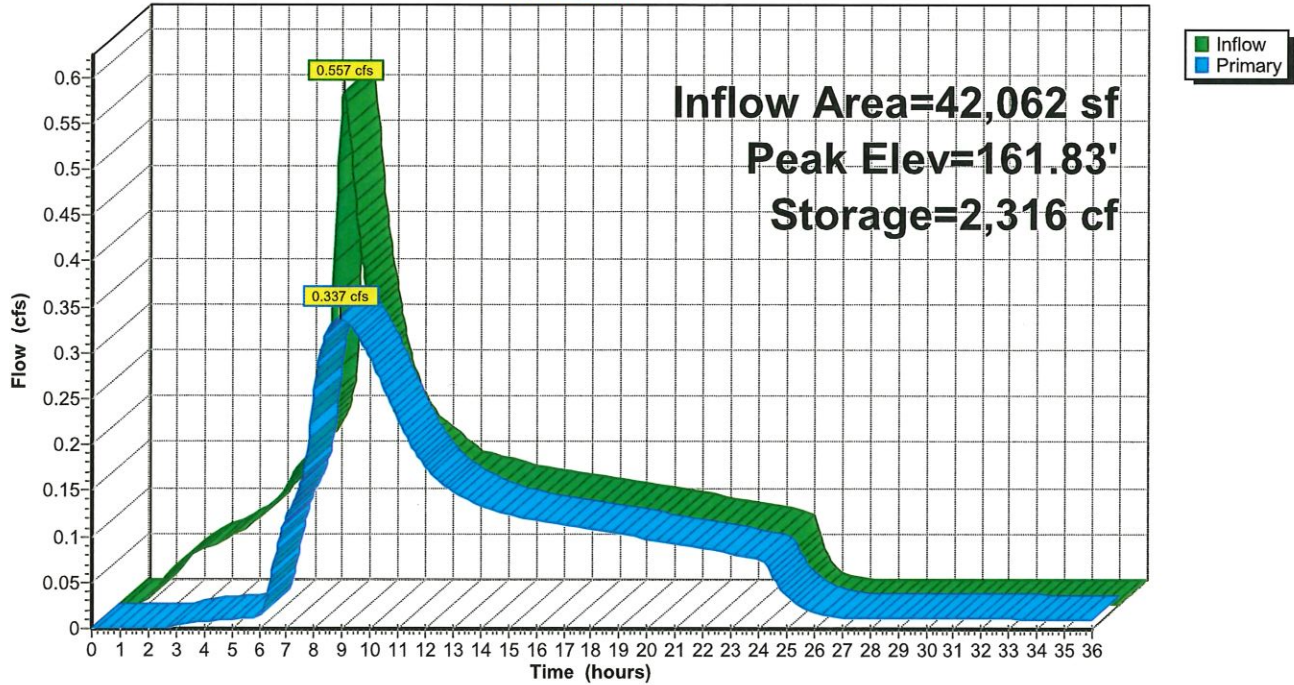
**Primary OutFlow** Max=0.337 cfs @ 8.89 hrs HW=161.83' TW=159.32' (Dynamic Tailwater)

- 1=WQ Orifice (Orifice Controls 0.016 cfs @ 6.03 fps)
- 2=1/2 of 2 Year Orifice (Orifice Controls 0.183 cfs @ 3.73 fps)
- 3=2-Yr Orifice (Orifice Controls 0.103 cfs @ 3.57 fps)
- 4=5-YR Orifice (Orifice Controls 0.035 cfs @ 2.82 fps)
- 5=50-Yr Overflow ( Controls 0.000 cfs)
- 6=Sharp-Crested Rectangular Weir ( Controls 0.000 cfs)



### Pond 4P: Extended Dry Basin

Hydrograph



**Blaine Street Post-developed 2020-018**

Type IA 24-hr 100yr Rainfall=4.50"

Prepared by HBH Consulting Engineers

Printed 10/14/2020

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Page 44

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points

Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 2S: Forest Pre & Post** Runoff Area=14,020 sf 0.00% Impervious Runoff Depth=2.73"  
Flow Length=237' Tc=14.1 min CN=83/0 Runoff=0.193 cfs 3,184 cf

**Subcatchment 3S: Post-Development** Runoff Area=42,062 sf 60.67% Impervious Runoff Depth=3.46"  
Flow Length=540' Tc=27.1 min CN=77/98 Runoff=0.607 cfs 12,115 cf

**Reach 5R: 12" Outfall** Avg. Flow Depth=0.10' Max Vel=10.45 fps Inflow=0.440 cfs 11,341 cf  
12.0" Round Pipe n=0.012 L=86.6' S=0.2740 '/' Capacity=20.204 cfs Outflow=0.439 cfs 11,341 cf

**Reach 6R: Creek Basin** Avg. Flow Depth=0.40' Max Vel=0.51 fps Inflow=0.548 cfs 14,525 cf  
n=0.140 L=137.0' S=0.0200 '/' Capacity=251.047 cfs Outflow=0.542 cfs 14,518 cf

**Pond 4P: Extended Dry Basin** Peak Elev=161.85' Storage=2,370 cf Inflow=0.607 cfs 12,115 cf  
Outflow=0.440 cfs 11,341 cf

**Blaine Street Post-developed 2020-018**

Prepared by HBH Consulting Engineers

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Type IA 24-hr 100yr Rainfall=4.50"

Printed 10/14/2020

Page 45

**Summary for Subcatchment 2S: Forest Pre & Post**

Runoff = 0.193 cfs @ 8.01 hrs, Volume= 3,184 cf, Depth= 2.73"

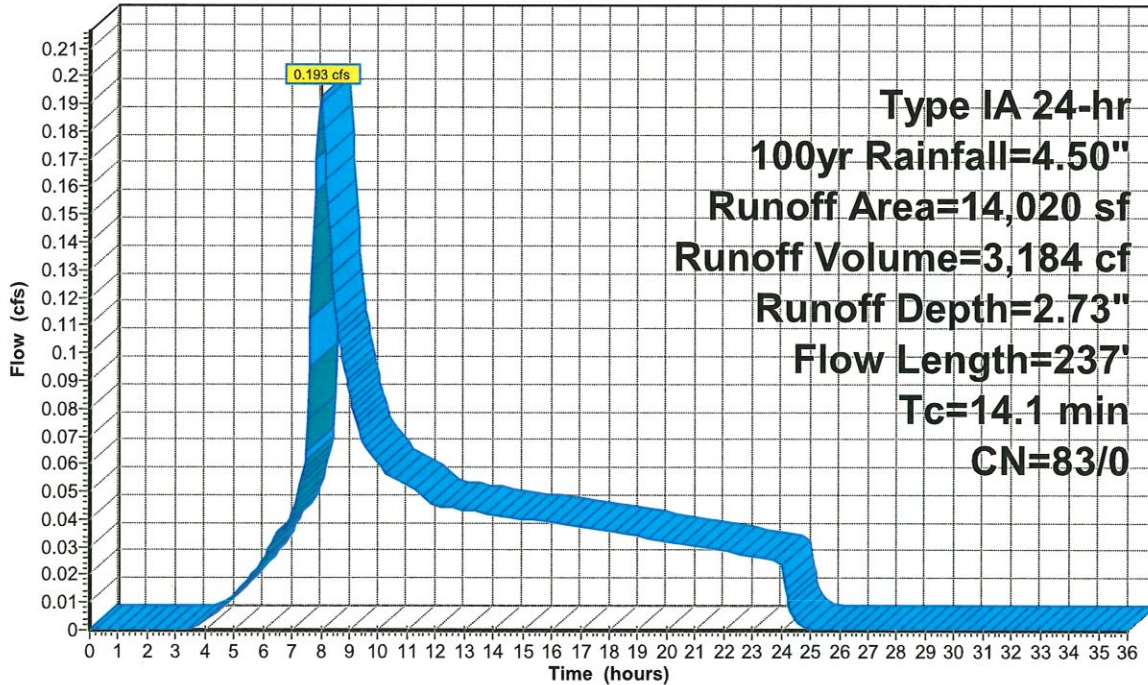
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 100yr Rainfall=4.50"

Area (sf)	CN	Description
14,020	83	Woods, Poor, HSG D
14,020	83	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	60	0.0200	0.14		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
6.5	137	0.0200	0.35		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
14.1	237	Total			

**Subcatchment 2S: Forest Pre & Post**

Hydrograph



Runoff

Type IA 24-hr  
100yr Rainfall=4.50"  
Runoff Area=14,020 sf  
Runoff Volume=3,184 cf  
Runoff Depth=2.73"  
Flow Length=237'  
Tc=14.1 min  
CN=83/0



**Summary for Subcatchment 3S: Post-Development**

Runoff = 0.607 cfs @ 8.04 hrs, Volume= 12,115 cf, Depth= 3.46"

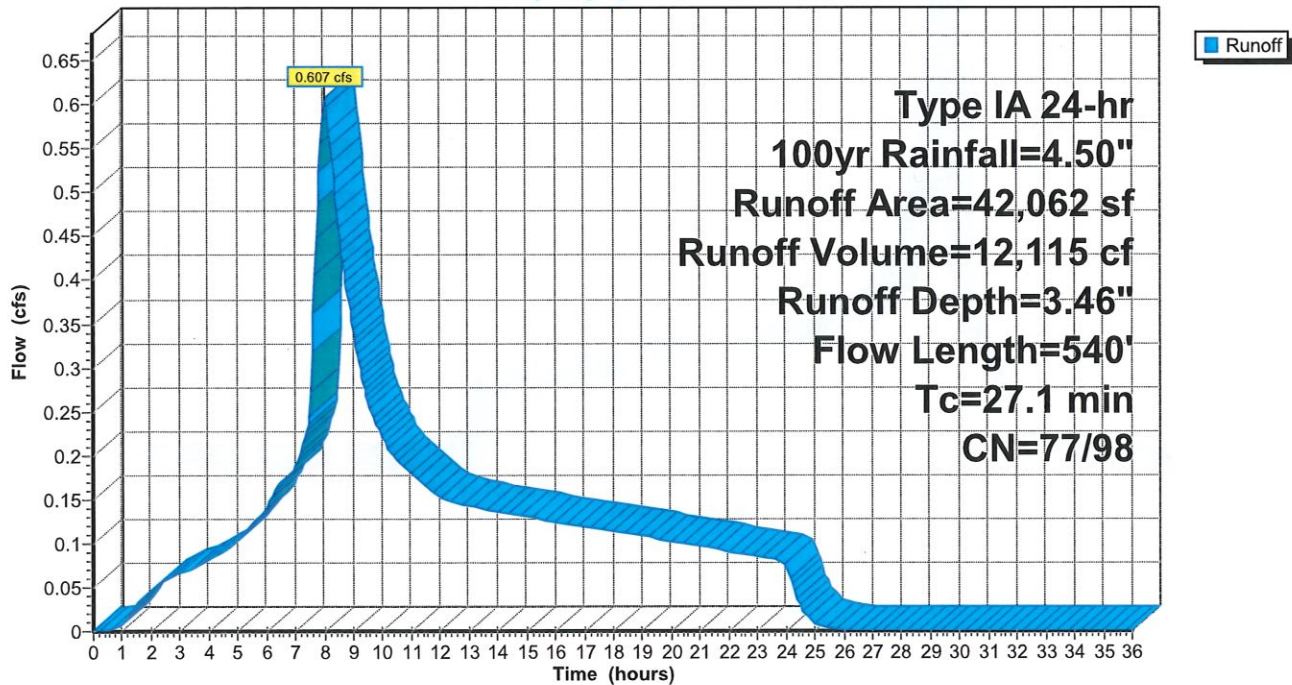
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 100yr Rainfall=4.50"

Area (sf)	CN	Description
* 16,543	77	>75% Grass cover, Good, HSG C/D
* 25,519	98	Asphalt/Concrete/Roofs, HSG C/D
42,062	90	Weighted Average
16,543	77	39.33% Pervious Area
25,519	98	60.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.8	150	0.0100	0.13		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.60"
2.2	150	0.0266	1.14		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.4	40	0.5000	1.77		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
4.7	200	0.0800	0.71		<b>Shallow Concentrated Flow,</b> Forest w/Heavy Litter Kv= 2.5 fps
27.1	540	Total			

**Subcatchment 3S: Post-Development**

Hydrograph



**Blaine Street Post-developed 2020-018**

Prepared by HBH Consulting Engineers

HydroCAD® 10.00-22 s/n 01354 © 2018 HydroCAD Software Solutions LLC

Type IA 24-hr 100yr Rainfall=4.50"

Printed 10/14/2020

Page 47

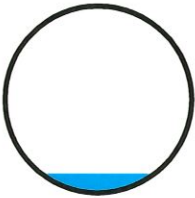
**Summary for Reach 5R: 12" Outfall**

Inflow Area = 42,062 sf, 60.67% Impervious, Inflow Depth > 3.24" for 100yr event  
Inflow = 0.440 cfs @ 8.57 hrs, Volume= 11,341 cf  
Outflow = 0.439 cfs @ 8.58 hrs, Volume= 11,341 cf, Atten= 0%, Lag= 0.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Max. Velocity= 10.45 fps, Min. Travel Time= 0.1 min  
Avg. Velocity = 5.76 fps, Avg. Travel Time= 0.3 min

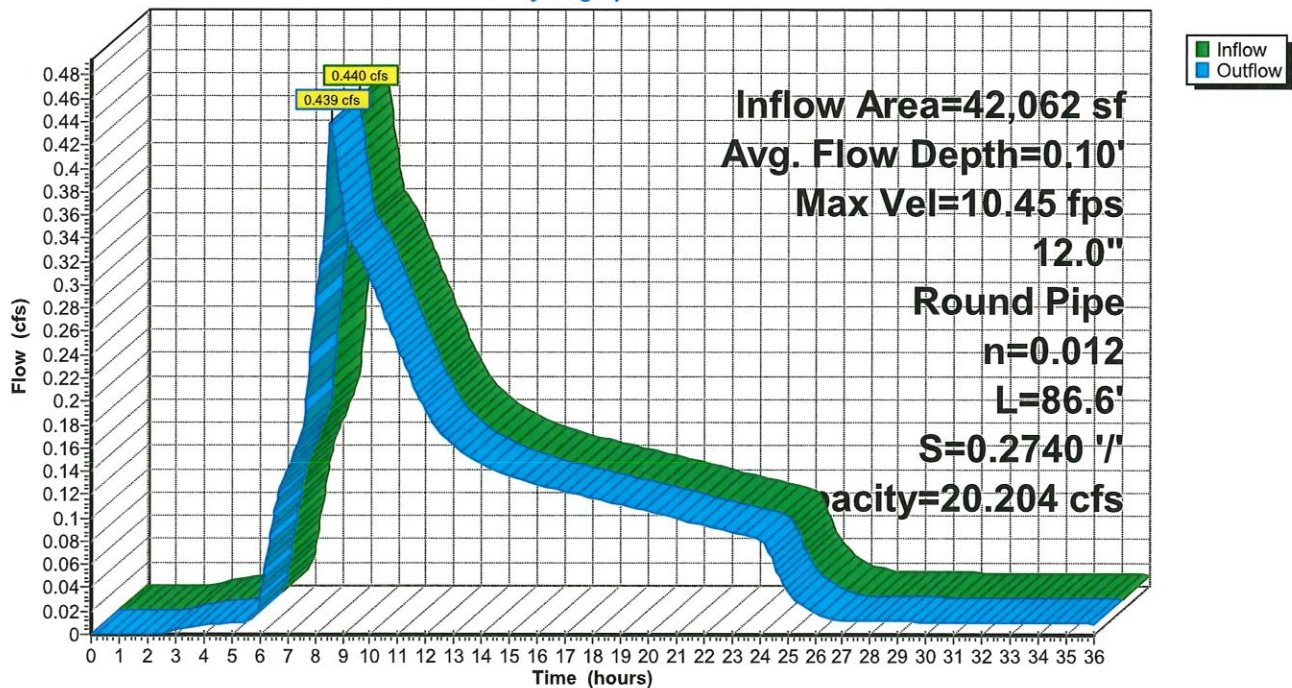
Peak Storage= 4 cf @ 8.58 hrs  
Average Depth at Peak Storage= 0.10'  
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 20.204 cfs

12.0" Round Pipe  
n= 0.012  
Length= 86.6' Slope= 0.2740 '/'  
Inlet Invert= 159.23', Outlet Invert= 135.50'



**Reach 5R: 12" Outfall**

Hydrograph





**Summary for Reach 6R: Creek Basin**

Inflow Area = 56,082 sf, 45.50% Impervious, Inflow Depth > 3.11" for 100yr event  
 Inflow = 0.548 cfs @ 8.56 hrs, Volume= 14,525 cf  
 Outflow = 0.542 cfs @ 8.62 hrs, Volume= 14,518 cf, Atten= 1%, Lag= 3.9 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.51 fps, Min. Travel Time= 4.5 min  
 Avg. Velocity = 0.31 fps, Avg. Travel Time= 7.4 min

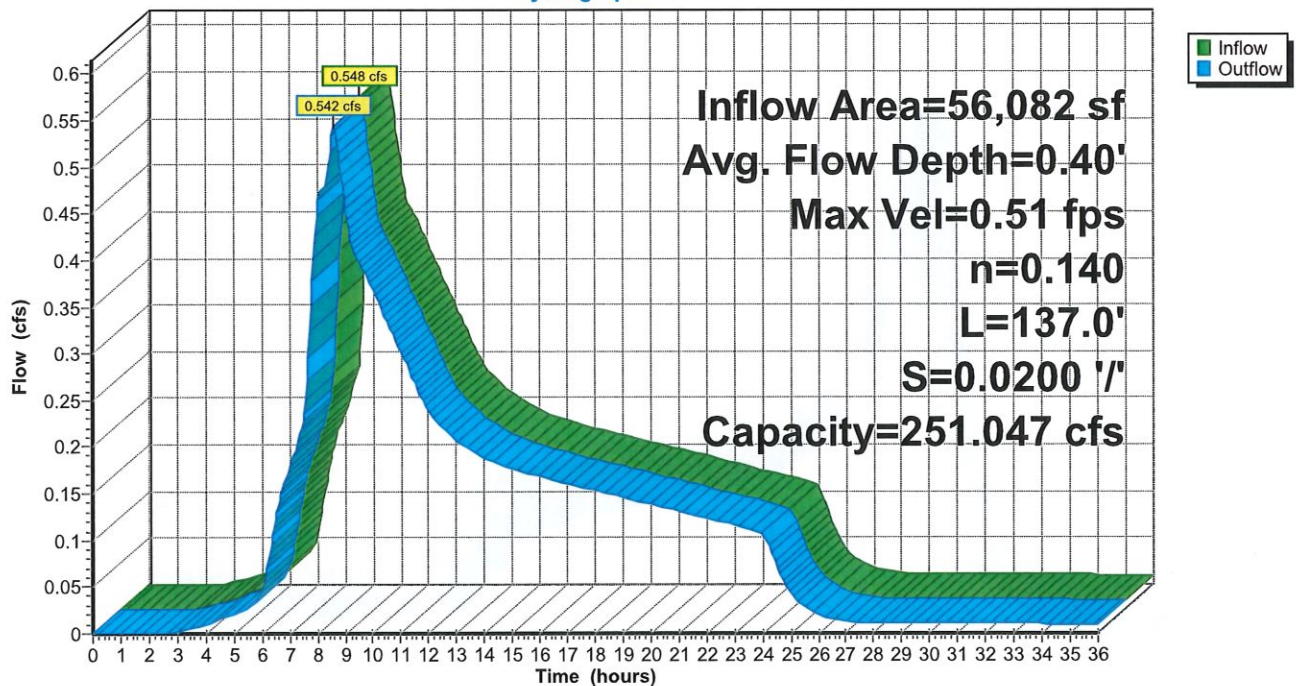
Peak Storage= 146 cf @ 8.62 hrs  
 Average Depth at Peak Storage= 0.40'  
 Bank-Full Depth= 4.00' Flow Area= 106.4 sf, Capacity= 251.047 cfs

0.00' x 4.00' deep channel, n= 0.140 Earth, dense brush, high stage  
 Side Slope Z-value= 3.3 10.0 '/' Top Width= 53.20'  
 Length= 137.0' Slope= 0.0200 '/'  
 Inlet Invert= 137.00', Outlet Invert= 134.26'



**Reach 6R: Creek Basin**

Hydrograph





**Summary for Pond 4P: Extended Dry Basin**

Inflow Area = 42,062 sf, 60.67% Impervious, Inflow Depth = 3.46" for 100yr event  
 Inflow = 0.607 cfs @ 8.04 hrs, Volume= 12,115 cf  
 Outflow = 0.440 cfs @ 8.57 hrs, Volume= 11,341 cf, Atten= 28%, Lag= 31.9 min  
 Primary = 0.440 cfs @ 8.57 hrs, Volume= 11,341 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
 Peak Elev= 161.85' @ 8.57 hrs Surf.Area= 1,994 sf Storage= 2,370 cf

Plug-Flow detention time= 175.2 min calculated for 11,325 cf (93% of inflow)  
 Center-of-Mass det. time= 130.1 min ( 847.1 - 717.1 )

Volume	Invert	Avail.Storage	Storage Description
#1	159.83'	6,315 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
159.83	391	0	0
160.83	1,142	767	767
161.83	1,972	1,557	2,324
162.83	2,884	2,428	4,752
163.33	3,370	1,564	6,315

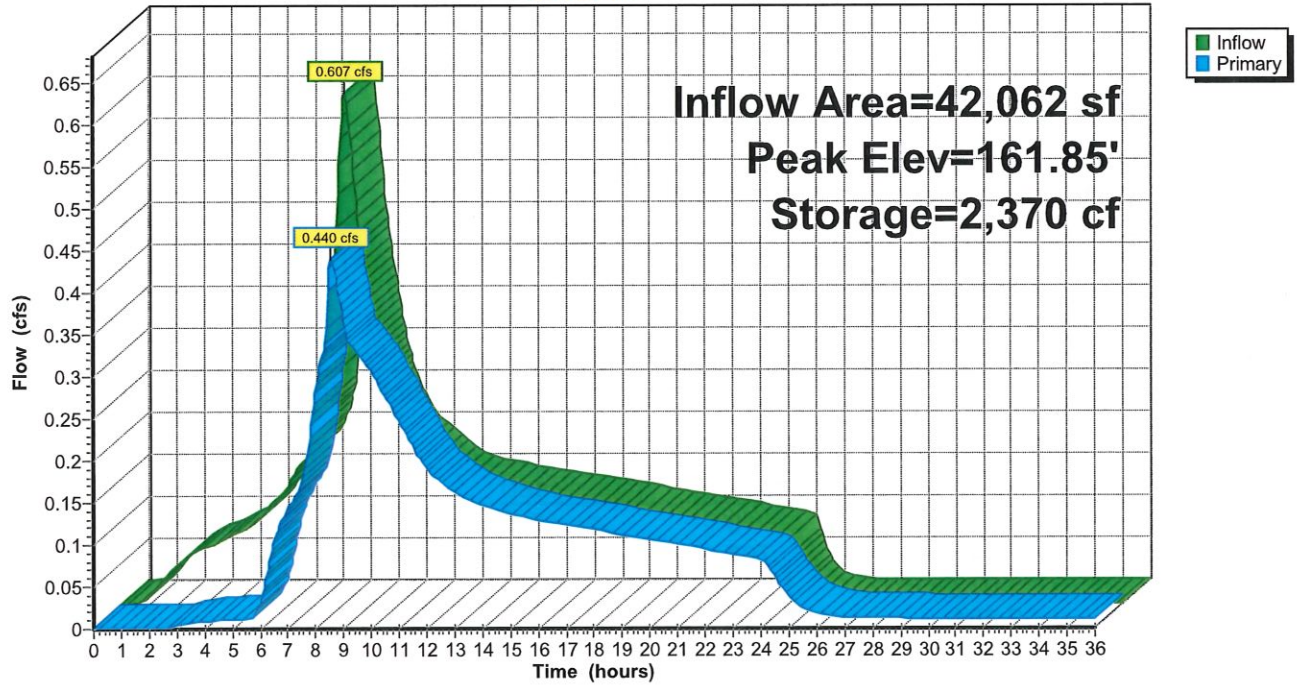
Device	Routing	Invert	Outlet Devices
#1	Primary	160.23'	<b>0.7" Vert. WQ Orifice</b> C= 0.600
#2	Primary	161.10'	<b>3.0" Vert. 1/2 of 2 Year Orifice</b> C= 0.600
#3	Primary	161.18'	<b>2.3" Vert. 2-Yr Orifice</b> C= 0.600
#4	Primary	161.42'	<b>1.5" Vert. 5-YR Orifice</b> C= 0.600
#5	Primary	161.83'	<b>24.0" x 24.0" Horiz. 50-Yr Overflow</b> C= 0.600 Limited to weir flow at low heads
#6	Primary	162.83'	<b>3.0' long Sharp-Crested Rectangular Weir</b> 2 End Contraction(s) 0.5' Crest Height

**Primary OutFlow** Max=0.439 cfs @ 8.57 hrs HW=161.85' TW=159.33' (Dynamic Tailwater)

- 1=WQ Orifice (Orifice Controls 0.016 cfs @ 6.08 fps)
- 2=1/2 of 2 Year Orifice (Orifice Controls 0.187 cfs @ 3.82 fps)
- 3=2-Yr Orifice (Orifice Controls 0.106 cfs @ 3.66 fps)
- 4=5-YR Orifice (Orifice Controls 0.036 cfs @ 2.93 fps)
- 5=50-Yr Overflow (Weir Controls 0.094 cfs @ 0.50 fps)
- 6=Sharp-Crested Rectangular Weir ( Controls 0.000 cfs)

### Pond 4P: Extended Dry Basin

Hydrograph



# 601 BLAINE STREET PARTITION

## NEWBERG, OREGON

### NOVEMBER, 2021



#### TAX LOT INFORMATION

THIS PROJECT IS LOCATED IN THE NE 1/4 SECTION OF 19, T 3 S, R 2 W, W.M. NEWBERG, YAMHILL COUNTY, OREGON (TAX LOT 4100)

#### PROJECT SITE LOCATION

601 S BLAINE STREET  
NEWBERG, OREGON 97132

#### LOCATE

(48 HOUR NOTICE PRIOR TO EXCAVATION) OREGON LAW REQUIRES YOU TO FOLLOW THE RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH 952-001-0090 & ORS 757.542 THROUGH 757.562 AND ORS 757.993. YOU MAY OBTAIN COPIES OF THE RULES FROM THE CENTER BY CALLING (503) 242-1987. ONE CALL SYSTEM NUMBER 1-800-332-2344.

#### OWNER

CASEY AND SHANNON BERNARD  
ZONE HOLDINGS  
375 SW VIEWMONT DRIVE  
DUNDEE, OREGON 97115  
PH: (503) 977-1608  
EMAIL: CASEYSBERNARD@YAHOO.COM

#### CIVIL ENGINEER

HBH CONSULTING ENGINEERS, INC.  
501 E FIRST STREET  
NEWBERG, OREGON 97132  
CONTACT: ANDREY CHERNISHOV, PE,  
PH: (503) 554-9553  
FAX: (503) 537-9554  
EMAIL: ACHERNISHOV@HBH-CONSULTING.COM

#### ARCHITECT

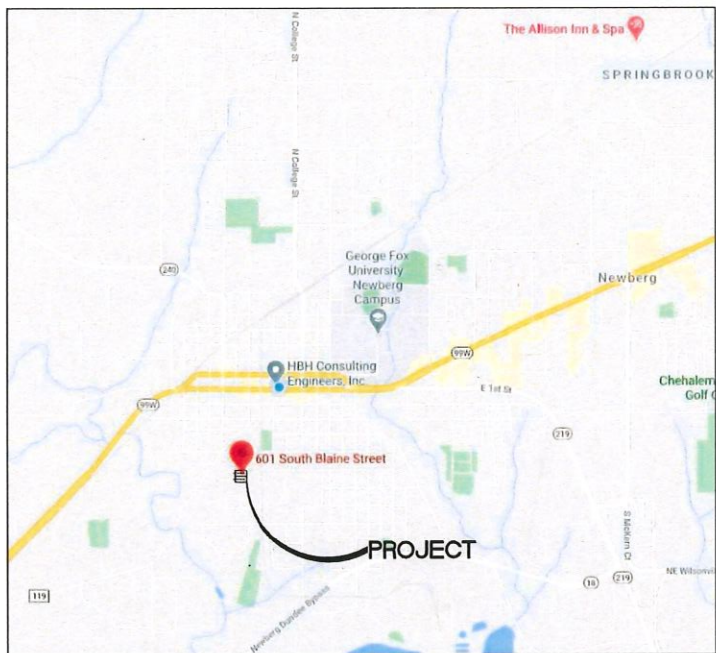
SLATER ARCHITECTURE  
8900 NE LIVINGSTON MTN RD  
CANUS, WASHINGTON 98607  
CONTACT: LISA SLATER  
PH: (360) 903-6886  
EMAIL: LISA@SLATERARCHITECTURE.COM

#### ABBREVIATIONS

⊙	AT	NE	NORTH EAST
AC	ASPHALT	NTS	NOT TO SCALE
BV	BUTTERFLY VALVE	NW	NORTH WEST
CB	CATCH BASIN	PC	POINT OF CURVATURE
C/L	CENTERLINE	PRC	POINT OF REVERSE CURVE
CMP	CORRUGATED METAL PIPE	PT	POINT OF TANGENCY
CO	CLEAN OUT	P/L	PROPERTY LINE
CONC	CONCRETE	PVC	POLYVINYL CHLORIDE
COTG	CLEAN OUT TO GRADE	PVI	POINT OF VERTICAL INTERSECTION
CY	CUBIC YARDS	ROW	RIGHT OF WAY
DR	DRIVE	RT	RIGHT
DI	DUCTILE IRON	S	SOUTH
DIP	DUCTILE IRON PIPE	SE	SOUTH EAST
E	EAST	SW	SOUTH WEST
ELEV	ELEVATION	STM	STORM DRAIN
EP	EDGE OF PAVEMENT	SF	SQUARE FEET
EX	EXISTING	SAN	SANITARY SEWER
FLG	FLANGE	ST	STREET
GUT	GUTTER	STA	STATION
GV	GATE VALVE	S=	SLOPE EQUALS
HDPE	HIGH DENSITY POLYETHYLENE	S/W	SIDEWALK
HOR	HORIZONTAL	TB	THRUST BLOCK
HP	HIGH POINT	TYP	TYPICAL
HYD	HYDRANT	VER	VERTICAL
IE	INVERT ELEVATION	W	WEST
LF	LINEAR FEET	W/	WITH
LN	LINE	WTR	WATER
LP	LOW POINT	WW	WASTE WATER
LT	LEFT		
MH	MANHOLE		
MJ	MECHANICAL JOINT		
N	NORTH		

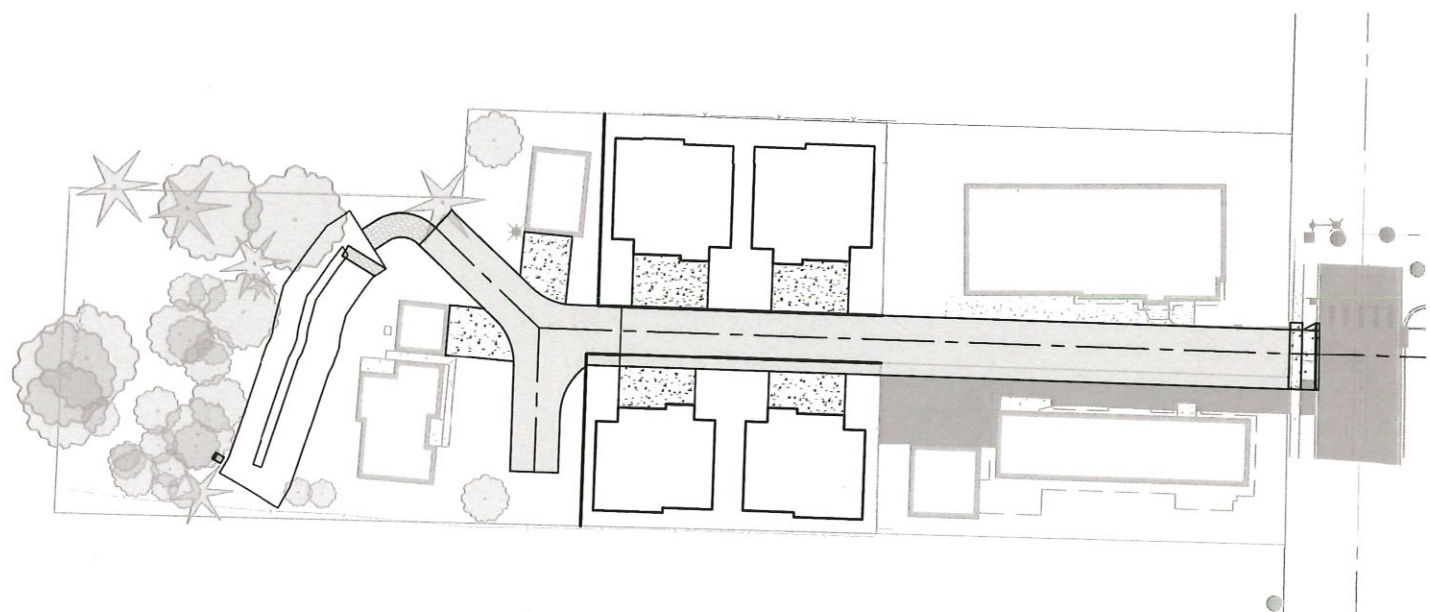
#### SHEET INDEX TABLE

C-1	COVER
C-2	DEMO + EXISTING CONDITIONS
C-3	TENTATIVE PLAT
C-4	SITE PLAN
C-5	COMPOSITE UTILITY PLAN
C-6	FIRE EXHIBIT



VICINITY MAP

NTS



SITE MAP

1"=40'

**H B H**  
ENGINEERS  
CONSULTING  
503/554-9553 fax 503/537-9554  
email: mat@hbh-consulting.com  
501 E First Street  
Newberg, Oregon 97132

REV.	DATE	DESCRIPTION	BY

IF THIS LINE IS NOT 1/4 INCH SCALE IS NOT AS SHOWN

CASEY AND SHANNON BERNARD - ZONE HOLDINGS  
375 SW VIEWMONT DRIVE - DUNDEE, OR 97115  
**601 BLAINE STREET PARTITION**  
601 S BLAINE STREET - NEWBERG, OR 97132  
**COVER**

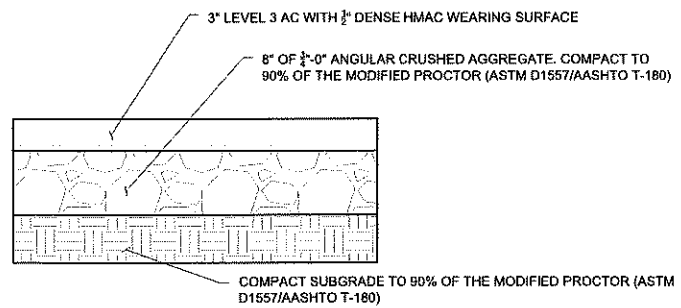
Date Sheet No. **C-1**  
11/18/2021  
2020-018  
1 of 7

Designed By: ARB  
Drawn By: ARB  
Checked By: ARC  
Submitted No: 30%  
L:\2020-018\4-Design\DWG1 - COVER\_FOR\MATTER.dwg  
File:









**PRIVATE PAVEMENT CROSS SECTION**

- DESIGNED TO MEET FIRE TRUCK LOAD OF 12,500 POUNDS OF POINT LOAD (WHEEL LOAD) AND 75,000 LB LIVE LOAD (GROSS VEHICLE WEIGHT).

ON-SITE PARKING REQUIRED:

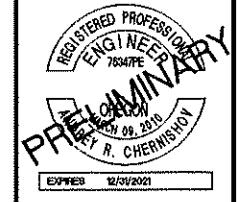
(3) PARKING STALLS PER DWELLING UNIT ON SITE

SETBACKS REQUIRED:

FRONT = 12' (PROJECTIONS ALLOWED 5')  
 GARAGE = 20' (PROJECTIONS ALLOWED 5')  
 SIDE = 5' (PROJECTIONS ALLOWED 2')  
 REAR = 5' (PROJECTIONS ALLOWED 2')

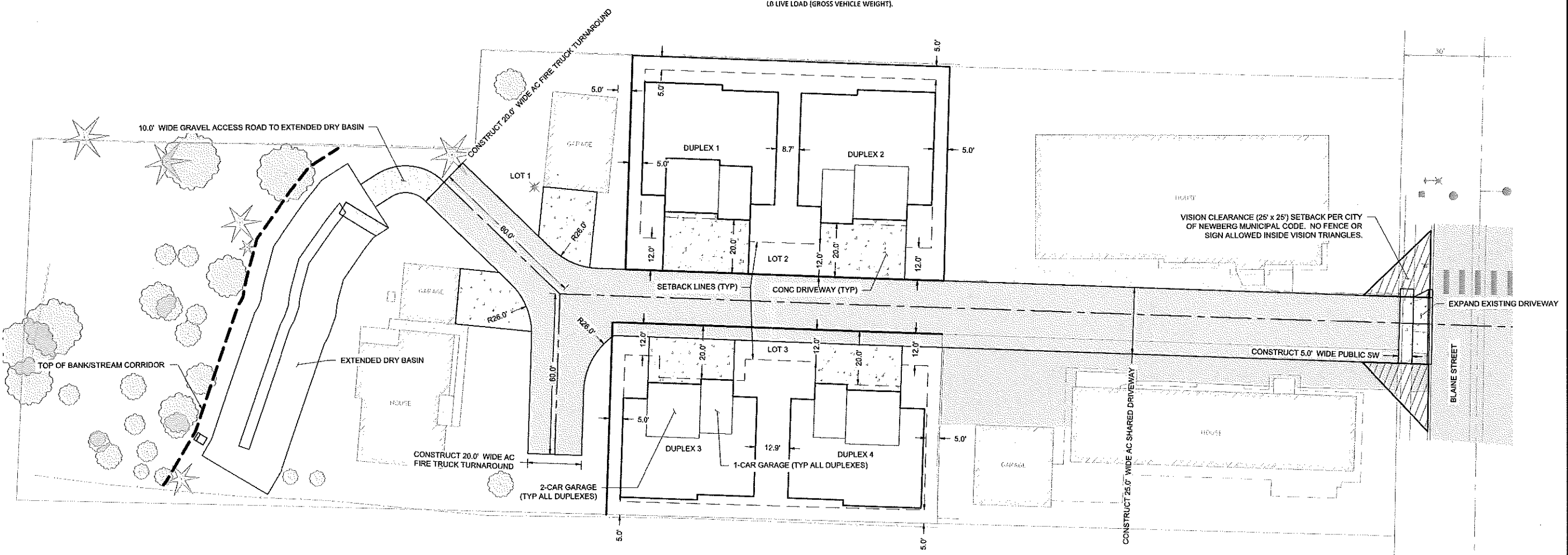
SQUARE FOOTAGE CALCULATIONS:

EACH DUPLEX  
 UNIT A (3-BEDROOM) = 1,500 SF  
 UNIT B (3-BEDROOM) = 2,000 SF  
 TOTAL BLDG LIVING AREA = 3,500 SF



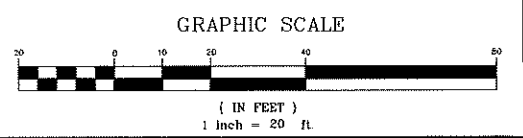
**H B H**  
 CONSULTING ENGINEERS  
 501 E First Street  
 Newberg, Oregon 97132  
 503/554-9553 fax 503/537-9554  
 email: mail@hbh-engineers.com

Designed By: ARB | Drawn By: ARB | Checked By: ARC | Submitted No: L32020-0184-Design/DWG32 - SITE PLANS.dwg | File: 30%



**SITE PLAN**

SCALE: 1" = 20'



REV.	DATE	DESCRIPTION	BY

CASEY AND SHANNON BERNARD - ZONE HOLDINGS  
 375 SW VIEWPOINT DRIVE - DUNDÉE, OR 97115

**601 BLAINE STREET PARTITION**  
 601 S BLAINE STREET - NEWBERG, OR 97132

**SITE PLAN**

Date: 11/18/2021  
 Sheet No: 4 of 7  
 Project No: 2020-018

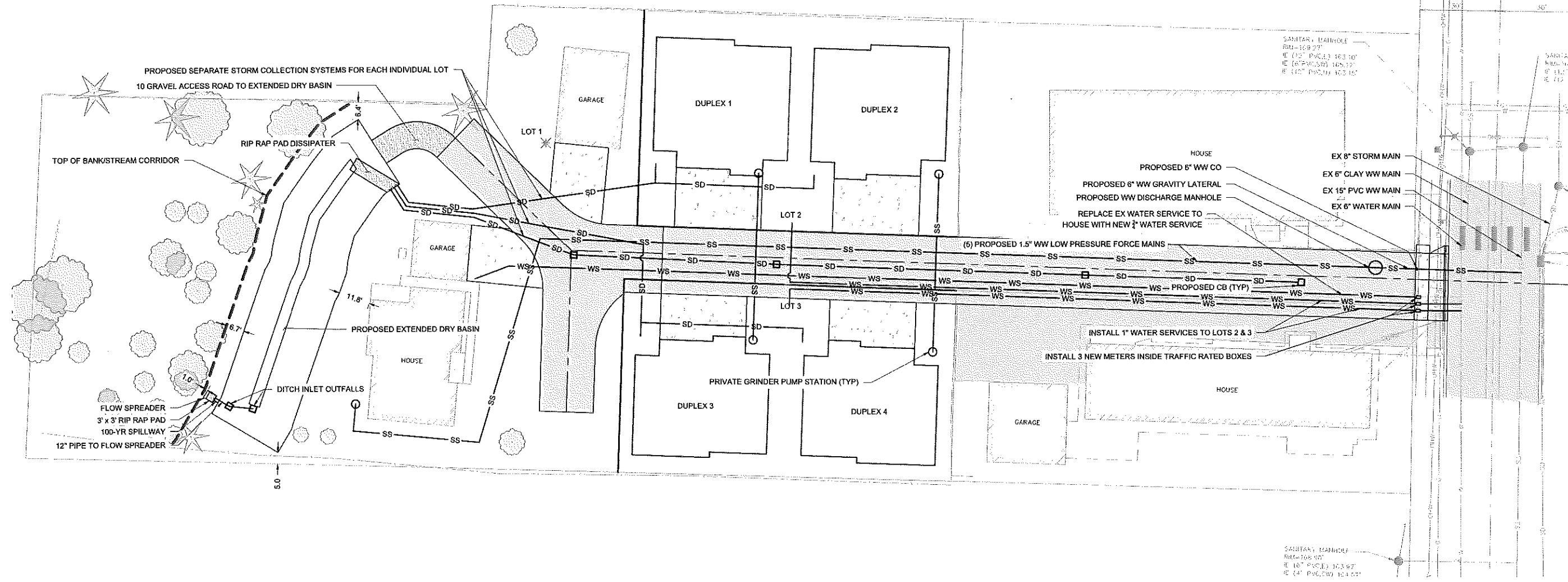




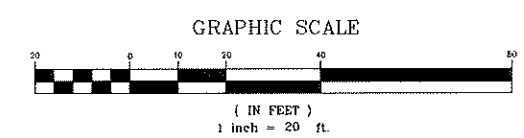
**PRELIMINARY**  
 EXPIRES 12/31/2021

**H B H ENGINEERS**  
 CONSULTING  
 501 E First Street  
 Newberg, Oregon 97132  
 503/554-9553 fax 503/537-9554  
 email: mail@hbh-engineers.com

Designed By: ARB | Drawn By: ARB | Checked By: ARC | Submittal No.: L:\2020-01\B4-Design\DWG3 - UTILITIES.dwg | File: 30%



COMPOSITE UTILITY PLAN  
 SCALE: 1" = 20'

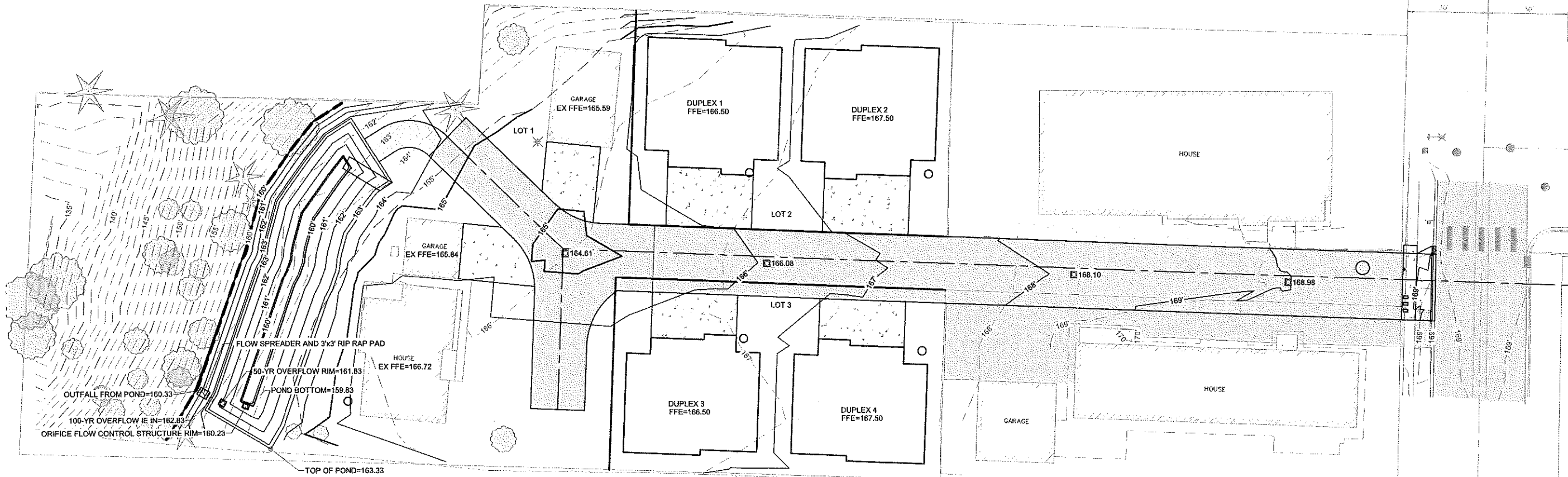


REV.	DATE	DESCRIPTION	BY

CASEY AND SHANNON BERNARD - ZONE HOLDINGS  
 575 SW VIEWMONT DRIVE - DUNDIE, OR 97115

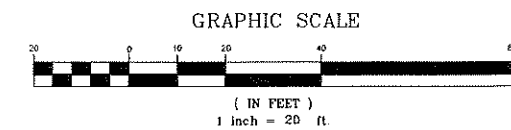
601 BLAINE STREET PARTITION  
 601 S BLAINE STREET - NEWBERG, OR 97132  
 COMPOSITE UTILITY PLAN

Date: 11/13/2020  
 Sheet No.: 5 of 7  
 2020-018



GRADING PLAN

SCALE: 1" = 20'



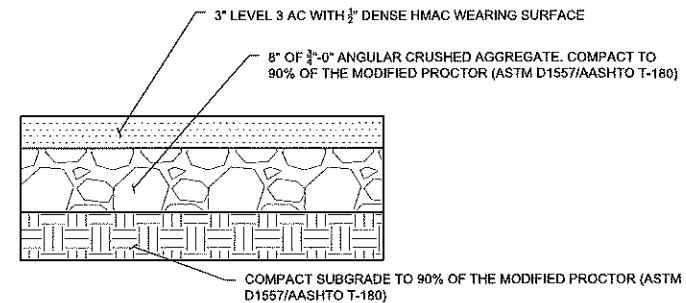
**H B H**  
**ENGINEERS**  
 CONSULTING  
 501 E First Street  
 Newberg, Oregon 97132  
 503/554-9553 fax 503/537-9554  
 email: mail@hbh-engineers.com

REV.	DATE	DESCRIPTION	BY

0' 1"  
 IF THIS LINE IS NOT 1 INCH  
 SCALE IS NOT AS SHOWN

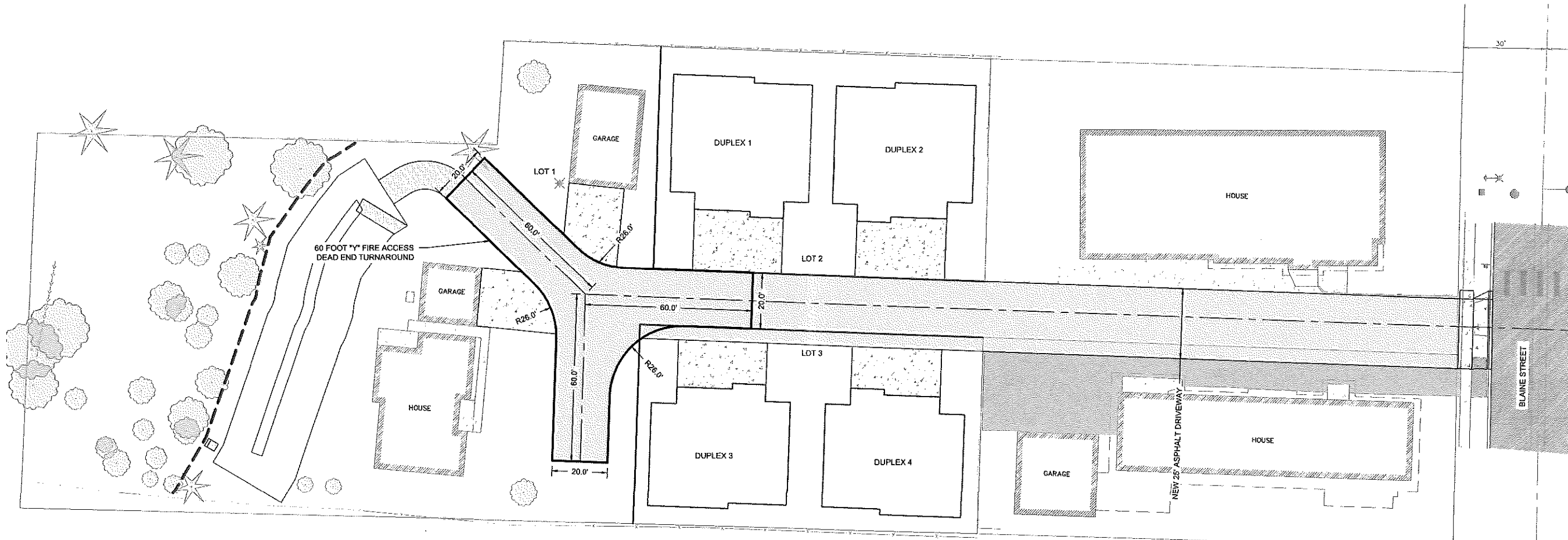
CASEY AND SHANNON BERNARD - ZONE HOLDINGS  
 375 SW VIEWPOINT DRIVE - DUNDIE, OR 97115  
**601 BLAINE STREET PARTITION**  
 601 S BLAINE STREET - NEWBERG, OR 97132  
**GRADING PLAN**

Designed By: ARB | Drawn By: ARB | Checked By: AFC | Submittal No: L3020-018M-DesignDWG4 - GRADING.dwg | 30%



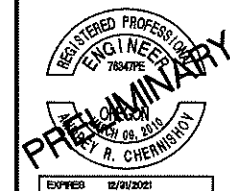
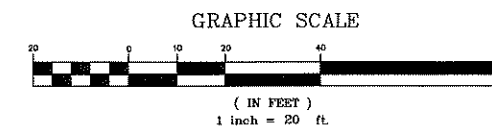
**PRIVATE PAVEMENT CROSS SECTION**

- DESIGNED TO MEET FIRE TRUCK LOAD OF 12,500 POUNDS OF POINT LOAD (WHEEL LOAD) AND 75,000 LB LIVE LOAD (GROSS VEHICLE WEIGHT).



**FIRE EXHIBIT**

SCALE: 1" = 20'



**H B H**  
 CONSULTING ENGINEERS  
 501 E First Street  
 Newberg, Oregon 97132  
 503/554-9553 fax 503/537-9554  
 email: mail@hbh-engineers.com

Designed By: ARB | Drawn By: ARB | Checked By: AFC | Submittal No: L:2020-0184-Design/DWG2 - SITE PLANS.dwg | File: | 30%

REV.	DATE	DESCRIPTION	BY

0' 1"  
 IF THIS LINE IS NOT 1 INCH  
 SCALE IS NOT AS SHOWN

CASEY AND SHANNON BERNARD - ZONE HOLDINGS  
 375 SW VIEWMONT DRIVE - DUNDREE, OR 97115  
**601 BLAINE STREET PARTITION**  
 601 S BLAINE STREET - NEWBERG, OR 97132  
**FIRE EXHIBIT**